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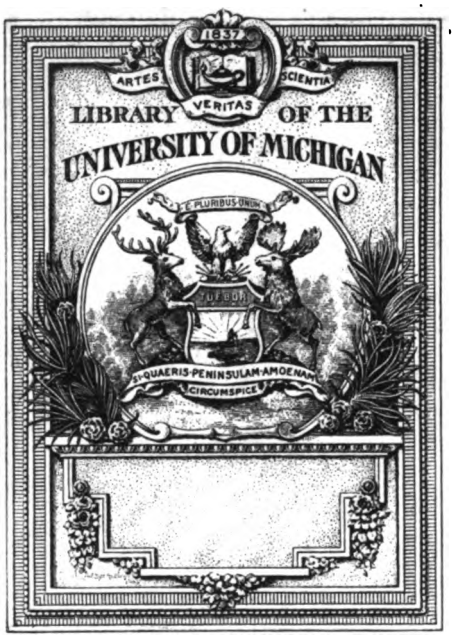

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ORIGINAL LECTURES.

PHILADELPHIA COUNTY MEDICAL SOCIETY LECTURES.

ON THE PHYSICAL EXPLORATION OF THE LUNGS BY MEANS OF AUSCULTATION AND PERCUSSION.

A course of three lectures delivered by invitation before the Philadelphia County Medical Society.

BY AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

LECTURE I.

THE TRUE MODE OF STUDY AND ITS REQUIREMENTS AS REGARDS AUSCULTATION AND PERCUSSION. THE SIGNS OBTAINED BY PERCUSSION.

Delivered November 25, 1882.

MR. PRESIDENT AND MEMBERS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY: The invitation to give a few lectures on some subject pertaining to practical medicine was accepted by me with a full appreciation of the high compliment and the responsibility therein involved. I cannot adequately express the gratification which I shall feel if, at the close of the lectures, I may be able to persuade myself that any expectations on your part, beyond the gratification of a complimentary disposition, have been measurably fulfilled. The subject selected, with the approval of the Committee on Lectures, is one to which for many years I have given much attention as a clinical student, and a clinical teacher. It may seem to be a hackneyed subject, but I hope to succeed in showing that it is one which at the present time claims attentive consideration with reference to a further increase, and a more general diffusion of the usefulness of its practical applications in the diagnosis of diseases.

INTRODUCTORY REMARKS.

The discovery of auscultation by Laennec in 1816, led to the resurrection of percussion as a method of physical exploration, a method brought into existence by Auenbrugger, but which the publication in Latin, in 1761, of the *inventum novum*, failed to keep alive, and which Corvisart, by his translation of Auenbrugger's treatise into the French language with abundant commentaries, published in 1808, had vainly attempted to reanimate. Restored to life by Laennec, percussion has since been hand in hand with auscultation. Each of these two methods has given invaluable aid to the other. They cannot with propriety be disjoined in practice, and they are necessarily associated in treating of the diagnosis of diseases. It would be of little use to discuss the relative advantages of the two methods. Doubtless, were we to be deprived of one of them, we could better afford to lose percussion than auscultation, but the advantages of either would be greatly diminished by the loss of the other. A more useful point of inquiry is, What progress has been made in our knowledge of physical exploration by the two methods conjointly since the time of Laennec? In answer to this inquiry, I have no intention to review in detail the labors of those who have cultivated this field in practical medicine since Laennec's day. They occupy a considerable space in the medical literature of the last half century. I shall offer some general statements, by way of introduction to the lectures, to which your attention is invited. The facts in auscultation which Laennec discovered constitute much stronger evidence of his genius than the discovery of the method. The latter, as he relates, was accidental. It is a marvel that he ascertained so much of what is known of auscultatory phenomena at the present time. The medical student of to-day may read his treatise with advantage on account of the accuracy of the observations, as well as affording a model of truth-loving candor and unaffected simplicity. It would have been strange indeed, if, in the interpretation of his observations, he had not fallen into some errors, and had he not failed to recognize all the directions in which the subject affords scope for clinical study. Of the many works which have appeared since the publication of Laennec's treatise, I will mention here but one, namely, the work of Skoda, published in 1839. This work passed through several editions, and was translated into the French and the English language. A considerable portion of the work is devoted to a refutation of Laennec's physical explanations of auscultatory phenomena. The tone of criticism is dogmatical, and it might perhaps be said to be arrogant. The author substitutes his own theories for the explanations given by Laennec, classifies differently the physical signs obtained by auscultation and percussion, and designates their distinctive characters by different terms. I shall refer to this work repeatedly in the course of my lectures, and oftener with dissent than with concurrence. The work has had a controlling effect upon the views of German medical writers up to the present moment, and, also, not an inconsiderable influence on the views of writers in other countries. I do not hesitate in expressing my belief that thereby auscultation and percussion have been injured as regards progress and the diffusion of knowledge in these branches of practical medicine.

Much as has been acquired by means of these two methods of exploration within the last fifty years, the place which they now hold in medical practice is not, as it seems to me, proportionate to the labor given to them, and the space which they now occupy in medical literature. Many practitioners make but little use of them. They are considered as constituting a specialty. There is lack of unanimity among those who bestow upon them special consideration, or regard the number of physical signs, the characters by which they are designated, and the significance which respectively belongs to them. The want of unanimity in the names used to designate different signs was so apparent in the discussion by the members of the Section in Medicine at the meeting of the International Medical Congress in 1881, that a committee was appointed to report an uniform nomenclature, at the next congress. This committee is composed of representatives from England, France, Germany, and the United States. It remains to be seen what they may accomplish.[1]

Writers are apt to enter largely into theoretic discussions relating to the mechanism of physical signs, discussions which are not essential, often unprofitable, and not infrequently leading to errors of observation.

[1] The members of this committee are as follows: Prof. Austin Flint, of New York, Chairman; Prof. Ewald, of Berlin; Prof. D'Espine, of Geneva; Dr. Powell and Dr. Mahommed, of London.

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By some writers signs have been needlessly multiplied, and the subject has been rendered apparently mysterious and abstruse by over-refinements. These are obstacles which have retarded progress in the knowledge of auscultation and percussion, and limited their practical use by medical practitioners.

THE TRUE MODE OF STUDY AND ITS REQUIREMENTS AS REGARDS AUSCULTATION AND PERCUSSION.

The true mode of study has been overlooked. By adopting and keeping steadily in view the requirements of the true mode of study, as I firmly believe, the obstacles just referred to will be avoided, our knowledge of physical signs will have a degree of precision which will make them far more available in diagnosis than hitherto, and the practice of auscultation and percussion will have a simplicity which should place its advantages in the hands of every intelligent, well-educated practitioner of medicine. What are the requirements for these desirable objects?

Firstly. A recognition of the fact that the signs obtained by means of auscultation and percussion are not directly diagnostic of particular diseases, but that they represent abnormal physical conditions which are common to a greater or less number of different diseases. The sign which approaches nearest to a pathognomonic significance, namely, the crepitant râle, does not exclusively belong to pneumonia. Signs which denote solidification of lung, namely, bronchial and broncho-vesicular respiration, increased vocal resonance, and bronchophony, are incident to various affections. The same is true of other signs. Given the presence of certain signs representing certain abnormal physical conditions in any case of disease, the diagnosis is to be determined by these signs taken in connection with the previous history of the case, and the present symptoms. It would be superfluous here to give illustrations, and I need hardly add, that this first requirement involves, in addition to a practical acquaintance with physical signs, knowledge of the important abnormal physical conditions which the signs represent, and of the relations of these conditions to the diseases in which they occur.

Secondly. It is to be acknowledged and borne in mind that positive proof of the diagnostic significance of the physical signs, as representing abnormal physical conditions, must be based exclusively on the constancy of the association of the latter with the former. The only solid foundation for practical knowledge of auscultation and percussion, thus, is on the facts obtained by clinical observation and by autopsical examinations, the facts from these two sources being ascertained in conjunction with each other. To establish physical diagnosis purely on the basis of principles of physics, is to build upon a sandy foundation. Not infrequently the conclusions concerning the significance of signs, logically deducted from physical data, are in direct conflict with facts derived from clinical observation. Reasoning *à priori* from the data of physics, the accuracy of observation is apt to be impaired. I would by no means imply that it is not desirable to explain, on the principles of physics, the connection existing between morbid physical conditions and their representative signs, but the diagnostic significance of the latter should in no way be thereby affected. It is useful as a means of corroborating and illustrating the significance of signs, to imitate, by artificial contrivances out of the body, as nearly as practicable, the physical conditions which the signs represent; and I hope to be able to show that the essential characters of nearly all the important signs obtained by auscultation and percussion may be artificially represented. I shall also introduce results of experimental observations which will show that many of the important physical signs may be profitably studied by making use of healthy and diseased lungs removed from the body. Most of the respiratory and vocal signs, as well as those obtained by percussion, may be reproduced after death by artificial respiration and the transmission into the air tubes of vocal sounds. The study of physical signs in this way is useful, in order to become familiar with their differential characters, and also with reference to the mechanism of their production.

The most unreliable course in forming judgments concerning the existence of certain morbid physical conditions, is to judge from the mental impressions produced by certain sounds, not heeding any well-defined characters of the latter. Here full sway is allowed to the imagination. The auscultator will be likely to find proof of physical conditions, the existence of which he had already inferred from the symptoms. Even Laennec's treatise is open to criticism on this score. Thus, he distinguished cavernous respiration as a sound giving an impression of air passing into a larger space than when the respiration is bronchial; he described pectoriloquy as complete when the voice seems to traverse the whole length of the stethoscope, whereas it traverses it partially when the pectoriloquy is incomplete, and the sign which he called a masked-blowing murmur (*souffle voilé*), was based on the idea of a movable veil between a cavity and the ear of the auscultator.

Thirdly. Individual physical signs are to be recognized as such only when their constant connection with distinct abnormal physical conditions has been established. This requirement is a security against an undue multiplication of signs by individualizing sounds which may be variations of established signs, or the significance of which has not been ascertained.

Fourthly. The differential characters of different signs would be distinct, clear, and simple. This requirement is of special importance as bearing on the true mode in which auscultation and percussion are to be studied. Naturally, the discoverer of auscultation was led to compare the sounds which he heard to those which are familiar. Hence, Laennec compared bronchial respiration to the sound of a current of air through a tube; œgophony to the cry of the goat; the crepitant râle to the crackling of salt on coals of fire; and the normal respiratory murmur to the sounds from the mouth of a person sleeping and breathing tranquilly. Skoda and others have undertaken to give an idea of auscultatory sounds by imitating them in the pronunciation, with the whispered voice, of different letters of the alphabet. A little reflection must, I think, render it evident that such comparisons cannot supply differential characters of the different signs obtained by either auscultation or percussion with that distinctiveness, clearness, and precision which are essential. There is but one way in which these differential characters can be made clear, distinctive, and precise. This is by means of what I have termed, by way of distinction, the analytical study of the sounds in health and disease. By the analytical study I mean, resolving the sounds into those elementary characters by which all sounds, natural or artificial, musical and non-musical, are practically discriminated. Now the chief differential points by which different sounds are distinguished from each other, relate to intensity, pitch, and quality. The distinctive characters of the sounds obtained by auscultation and percussion should be based mainly on points of difference derived from intensity, pitch, and quality. As thus derived, the differential characters may be made clear, distinct, precise, and also simple. Minor points of difference, which, however, are not to be overlooked, and in some instances are highly important, relate to the duration of sound, the rhythmical succession of inspiratory and expiratory sounds, and

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the apparent distance from, or nearness to, the ear of the listener. More than thirty years ago, I was led to study the sounds obtained by auscultation and percussion with special reference to their variations in pitch. The results of the study were given in an essay which received a prize from the American Medical Association, and which was published in the *Transactions* of the Association of 1852.[1] I believe I was correct in commencing the essay by saying that "Very little attention has hitherto been paid to variations in the pitch of sounds heard in the practice of percussion and pulmonary auscultation." Although since that date increased attention has been paid to auscultatory sounds and those obtained by percussion, the distinctions pertaining to this source of differential characters, which were pointed out in that publication, have not, as yet, been fully and generally accepted. I have indicated, since the publication of that essay, additional distinctions which, as it seems to me, are of much importance in their applications to diagnosis. In treating of physical signs, in these lectures, it is but fair to my hearers to state that certain points of distinction relating to the pitch and quality of sounds originated in my own observations, and, on the other hand, it is but right to claim whatever merit may belong to my orignal observations.

Fifthly. The last requirement to be mentioned relates to nomenclature. The names by which the physical signs are designated, and the terms applied to their distinctive characters, should be correctly and clearly expressive. It is, of course, very desirable that the nomenclature should be uniform, as regards words and their meanings, in all countries. Words which denote theoretical views are objectionable. An example is the term "consonating," applied by Skoda to certain sounds produced by the breath, and the voice, and to certain râles. The term denotes not only a theory, but one the correctness of which is maintained by few, if any. The terms "full" and "empty," applied by the same author to sounds produced by percussion, convey no well-defined ideas, and it is not easy to understand what the author means by them after carefully reading his explanations. These terms are still in use by German authors, as also another singularly unsatisfactory term, namely, "indeterminate." Skoda applies this term to respiratory sounds which are neither bronchial nor vesicular, not attempting to give any positive, distinctive characters, and, indeed, declaring that this is impossible. I hope to show that it is not in the least necessary to use such a negative term as "indeterminate" in designating a group of respiratory signs. Such names as "wooden resonance," and "band-box resonance," are too loose to be appropriate. Especially objectionable is the designation of signs after the names of those who have described them. The names Williams, Skoda, Gerhardt, Biermer, and Wintrick have been introduced into the nomenclature of physical exploration by some German authors.

PERCUSSION.

It is usual to consider percussion before considering auscultation. The compass of the former is much the smaller, and its consideration prepares for that of the latter. Moreover, in the clinical employment of the two methods, percussion generally precedes auscultation.

PERCUSSORS AND PLEXIMETERS.

Auenbrugger was content with percussing by the fingers directly upon the thoracic parietes. The introduction of the pleximeter by Piorry was an improvement, but of vastly less importance than was claimed by him. It has perhaps never occurred to some of those present to practise immediate percussion. It will be found on trial less unsatisfactory, probably, than had been supposed. The credit of using a hammer, instead of the finger, as a percussor, is attributed to Wintrich. The hammer devised by him, and I believe still used in Germany, is a curiosity. As it has been but little used in this country, it may have interest in the way of novelty to some present, and I therefore exhibit it. As you see, the hammer part of the instrument, which is made of brass, is long and heavy. The point is tipped with India rubber. The handle is light and thin, with excavations to receive the ends of the thumb and fingers. It could hardly have been more clumsily devised to be used by striking directly upon the pleximeter. This was not intended; but the hammer is to be thrown upward by the movement of the hand in which it is held, and then allowed to fall upon the pleximeter. It is difficult to see in what respect this manner of percussing has any advantage over that in which the blows are made directly, and the disadvantages are obvious. It would not be profitable to discuss the different varieties of percussors which are in use with us. I shall simply show one which I have used for many years, and which I have found to answer admirably. It consists of a piece of India rubber in the form of a double cone, held in a ring at the end of a handle made of vulcanized rubber. It is light; it makes but little noise in coming into contact with whatever is used as a plexímeter, and it is durable.

I need not say that as both a pleximeter and a percussor, the fingers of the two hands answer every purpose in private practice. The chief object of an artificial pleximeter is to save the fingers from injury by frequent percussion. The pleximeter which I show I have used for some time. It is made of vulcanized India rubber, is light, easily held, and readily applied to the chest.

THE NORMAL VESICULAR RESONANCE ON PERCUSSION.

A thorough practical knowledge of the characters which distinguish the sounds in health is, of course, essential, as preparatory for the study of the morbid signs furnished by percussion and by auscultation. I have always found it difficult to enforce sufficiently this obvious truth in teaching medical students, and I suspect that with practitioners difficulty in the recognition of morbid signs is often attributable to an imperfect appreciation of the characters distinctive of normal sounds. Studied analytically, the characters which distinguish the normal resonance on percussion are resolvable into those derived from pitch and quality, inasmuch as the intensity varies in different persons and in different regions of the chest. Some exercise is necessary for a correct appreciation of pitch, as distinguished from quality, in the sounds obtained by percussion. Errors are sometimes attributable to a lack of this exercise. The relative variations in pitch are easily expressed by the terms high and low. On the other hand, the peculiar quality of any sound cannot be expressed in language. Let it be supposed, for example, that one should endeavor to describe the quality of the tones of a violin, or of any other musical instrument, to one who had never heard them. An idea of the quality of sounds can only be given by comparison, and it is rare for two sounds produced in different ways to resemble each other so closely that the one will give a clear idea of the other. Moreover, the variations in the quality of sounds are innumerable. As an illustration, let it be considered that the human voice has so many diversities, irrespective of pitch and intensity, that among many thousand persons it would be difficult to find two voices precisely alike. Hence, the peculiar quality of

[1] This essay was entitled "On Variations of Pitch in Percussion and Respiratory Sounds, and their Application to Physical Diagnosis."

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sounds must be learned by direct observation. Now, as regards the pitch and quality of the normal pulmonary resonance, the quality is *sui generis*. It cannot be described. Evidently the quality is dependent on the fact that the air which gives the resonance is contained in the pulmonary vesicles or alveolæ, and not in a free space, and, for this reason, the name *vesicular*, which is used to distinguish this peculiar quality, is appropriate. The pitch, as compared with the abnormal sound obtained by percussion, is low. I believe I am correct in saying that no abnormal sound obtained by percussing the chest is ever lower in pitch than the normal vesicular resonance in the same subject. The pitch of the normal resonance is evidently determined by the same physical conditions to which the vesicular quality is attributable, for the pitch is lower in proportion as this quality is marked, and *vice versa*.

In order to represent, artificially, vesicular resonance, an article must be found which resembles lung in the essential physical condition, namely, containing air in innumerable minute spaces. A feeble imitation is obtained by percussing a sponge. My friend, Dr. J. S. Thatcher, has suggested a much better article—a loaf of bread. Bread in the form of a loaf gives a resonance of considerable intensity, and it is a fair representation of the vesicular resonance. It should be covered with a cloth in order to diminish the noise produced by the contact of the fingers or the percussor, and thus to elicit better the sound from the air contained in the interstices of the loaf. The upper crust stands in place of the thoracic wall. The resonance elicited illustrates the lowness of the pitch, with a pretty close approach to the peculiar quality of the normal pulmonary resonance.

When it is considered that all the knowledge furnished by percussion, which is available in the physical diagnosis of pulmonary diseases, may be comprised in four signs, one is led to exclaim, What is to hinder the possession of this knowledge to the fullest extent by every practitioner! There is no hindrance beyond unanimity in the recognition of the existence of these signs, and that practical acquaintance with their differential characters which requires but a very moderate amount of time and attention. Arranged in pairs, the four signs are, 1st, flatness and dulness; 2d, tympanitic and vesiculo-tympanitic resonance.

FLATNESS AND DULNESS.

The first pair represent different degrees of the same morbid physical conditions, namely, either the presence of liquid in the pleural cavity, liquid in the vesicles, or in the interstitial lung tissue, or solidification of lung incident to pneumonia, phthisis, pleurisy, and other affections, or morbid growths within or extending into the intra-thoracic space. It is to be understood that the term flatness means no proper sound or resonance. It is absence of sound. It cannot be defined more distinctly than by this statement. There can, of course, be no degrees or variety of flatness.

In dulness, the resonance is more or less diminished. There are degrees varying from the slightest diminution to that approximating as closely as possible to flatness. Flatness has, of course, neither pitch nor quality of sound. Dulness, considered as a distinct sign, always has more or less of the quality which belongs to the normal resonance, that is, the vesicular quality. If this quality be entirely wanting, the resonance is tympanitic, as will presently be seen. A fact which I pointed out in my essay published in 1852, is that in dulness the pitch of sound is invariably higher than that of the normal resonance of the person examined. This fact is of importance, as assisting in the recognition of a slight degree of dulness. It is of much importance in certain cases which will be referred to in connection with vesiculo-tympanitic resonance. The elevation of pitch now generally enters into the account given by medical writers of dulness or percussion, which it did not prior to 1852.

The essential distinction in the other pair of signs, namely,

TYMPANITIC AND VESICULO-TYMPANITIC RESONANCE,

relates to quality of sound. In a purely tympanitic resonance, there is complete absence of the vesicular quality which belongs to the normal resonance. Conversely, a resonance in which the vesicular quality is absent is always tympanitic. This sign represents the following morbid physical conditions: air in the pleural space, pulmonary cavities, solidification of the upper lobe of a lung, the resonance then being derived from air in the extra-pulmonary bronchial tubes, and conduction of resonance from the stomach or colon.

The tympanitic resonance, as just distinguished, is artificially reproduced whenever resonance is derived from air in a free space of greater or less size, instead of being derived from air in a collection of minute spaces like those of the pulmonary vesicles, or the interstices of the bread-loaf. The intensity of the resonance will depend on the amount of free air, the thickness, elasticity, and tension of the walls of the space containing the air, and other circumstances, aside from the force of the percussion. However feeble and distant, the resonance is always tympanitic if it be devoid of that peculiar quality due to the fact that the air is in minute spaces, namely, the vesicular quality. It is, perhaps, a common impression that for a resonance to be tympanitic, it must be louder than the normal resonance. Intensity is an unimportant element so far as regards the distinctive characters of the sign. It may have any degree of gradation between much intensity and great feebleness of sound. Air in the pleural space frequently yields a tympanitic resonance which is notably intense. As a rule, the resonance is comparatively feeble over a pulmonary cavity, and where derived from air in the extra-pulmonary bronchi, the sound being conducted through solidified lung.

A tympanitic resonance is invariably higher in pitch than the normal resonance. I believe this statement to be correct, although the reverse is stated by some medical writers, who are in error, as I suppose, either from reasoning incorrectly on principles of physics, or from not accurately distinguishing pitch from intensity and quality. The latter mistake is liable to occur without some training of the ear, and careful attention. It is by no means as easy to distinguish variations in the pitch of non-musical sounds as of musical notes. Some exercise is requisite to secure accuracy, and the discrimination is undoubtedly somewhat difficult for those who have not what is called a "musical ear."

Other things being equal, the pitch is lowered the larger the free space containing air. The bass-drum has a notably lower tone than the kettle-drum, and the non-musical resonance from an inflated bladder or an India-rubber bag of considerable size, is lower than that from a small hollow India-rubber ball. Percussion over a flatulent cæcum gives a higher pitch of resonance than over the stomach; the pitch of resonance over the colon distended with gas is lower than the resonance from either the stomach or cæcum, and the resonance over the small intestine is still lower. Tension has much to do with pitch; this is shown by the effect of tightening a drum-head. The effect of the difference in the material of the walls of the space enclosing air, upon the pitch and intensity, is shown by comparing the sounds produced by beating a drum on its head and on its sides. The many variations corresponding to those in the physical conditions which give rise to tympanitic resonance, may have interest for some who

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are curious as regards the *minutiæ* of acoustic phenomena, but, if two varieties to be presently noticed be excepted, the variations in tympanitic resonance are of no utility in their practical applications to physical diagnosis. They are burdensome and perplexing to the student of percussion who desires only to acquire the knowledge which is practically useful. One who wishes more than this will find in the treatise by Eichhorst on the *Physical Methods of Investigating Internal Diseases*, enough to gratify curiosity respecting minute and superfluous details.

A practical point of importance pertaining to tympanitic resonance, is its ready conduction for a greater or less distance beyond the limits of the space whence it comes. In this respect it differs notably from the normal vesicular resonance. A gastric tympanitic resonance is often conducted upward over a considerable portion of the thorax on the left side. In like manner, the resonance from the colon may extend as far as, or even above, the upper boundary of hepatic flatness. It follows that this resonance is unreliable for determining with accuracy the lower border of the liver, the boundaries of the spleen, and the space occupied by abdominal tumors.

AMPHORIC AND CRACKED-METAL RESONANCE.

Tympanitic resonance, with either an amphoric or cracked-metal intonation, claims but a passing notice. The familiar illustrations of these varieties by filliping the check made more or less tense, and by striking the closed hands upon the knee, cannot be improved upon. The intonations may be produced by percussing India-rubber hollow balls of different sizes. Clinically, the fact that the intonations are sometimes heard on percussing over the solidified upper lobe of the lung in situations over the extra-pulmonary bronchi, is not to be overlooked. And the fact that, with this exception and the rare instances in which in these situations they are found in health, they are invariably cavernous signs, renders them of much value in diagnosis. Another practical fact is perhaps not always appreciated, namely, that these intonations may very often be perceived by the ear close to the open mouth of the patient, when otherwise they escape observation. Still another fact deserves mention. With the pectoral extremity of the binaural stethoscope close to the open mouth of the patient, they may be recognized when they are not readily perceived without this instrument. Finally, it is to be borne in mind that they are found at some times and not at other times, owing to the varying condition of cavities as regard emptiness, and of the bronchial tubes as regards freedom from obstruction.

The last of the four signs is the

VESICULO-TYMPANITIC RESONANCE.

I must hold myself responsible for the name and the description of the characters distinctive of this sign. The name expresses the most diagnostic feature. The vesicular and the tympanitic quality are combined in varying proportions. An essential feature, however, is an increase in intensity. The intensification may be greater or less in degree. The pitch of the resonance is invariably raised. It is raised in proportion as the tympanitic predominates over the vesicular quality. This sign is therefore distinguished from the normal resonance by the presence of more or less of the tympanitic quality of sound, by greater intensity, and by a higher pitch. It is distinguished from the tympanitic resonance by the presence of more or less of the vesicular quality of sound. It is distinguished from dulness by its intensity. The only difficulty in its recognition practically, pertains to its discrimination from tympanitic resonance. The predominance of the tympanitic quality, with a proportionate elevation of pitch, may be so great that it may seem to be purely tympanitic. This error may always be avoided by attention to coexisting physical signs. The sign represents an abnormal accumulation of air within the air-cells. It is, therefore, *par excellence*, the sign of pulmonary emphysema. Its practical value in diagnosis is chiefly in that pathological connection. It occurs, however, in other pathological connections. It is this sign which is obtained above the level of liquid when the quantity is sufficient to fill a third, a half, or even two-thirds of the thoracic space, be the liquid either serous or purulent. It is obtained in cases of pneumonia affecting one lobe of a lung, over the unaffected lobe of the same lung, be the latter either the upper or the lower lobe. I forego discussion of the question, wherefore is the sign present in these two pathological connections, simply stating that I suppose in either instance there is an abnormal accumulation of air and increased tension of the alveolar walls within the lobes which yield the sign.

The vesiculo-tympanitic resonance may be illustrated by means of the human lungs, or those of the calf or sheep, removed from the body; inflated artificially within the limit of a normal inspiration, the resonance represents the normal vesicular. Inflated considerably beyond that limit, the emphysematous condition is produced, and the resonance represents that condition.

There is a liability to error in the non-recognition of this sign in certain cases of pulmonary emphysema; and, consequently, to an unfortunate mistake in diagnosis. As a rule, in emphysema, the upper lobes of both lungs are affected, and the lobe of the left in a greater degree than that of the right lung. Now, under these circumstances, the upper lobe in both lungs yields a vesiculo-tympanitic resonance, but this sign is more marked on the left than on the right side, the difference corresponding to the difference in the degree of emphysema. The error is in regarding the lesser degree of resonance on the right, compared with the greater degree of increased resonance on the left side, as dulness which, taken in connection with the symptoms, would point to a phthisical affection. This error of observation, and consequent mistake in diagnosis, is a not very infrequent occurrence. The relatively lesser degree of resonance on the right side at the summit of the chest, which is supposed to be dulness, is, in fact, a vesiculo-tympanitic resonance, and the intensity is therefore greater than normal. The intensity seems to be diminished because it is relatively less than the still greater intensity on the left side. The error is avoided by attention to the pitch and the quality of the resonance on the two sides. If the disparity in respect of the intensity of resonance be due to a greater amount of emphysema on the left side, the pitch of the sound will be higher on that side than on the right side, and the quality will be distinctly vesiculo-tympanitic. On the other hand, were the disparity due to dulness on the right side, the pitch of sound should be higher on that side than on the left side, and the vesicular quality of the resonance on the left side should be without admixture with a tympanitic quality. A useful practical exercise is to select two patients, one affected moderately with emphysema, and the other with a moderate phthisical affection at the summit of the right lung. In the case of phthisis, the resonance at the summit of the right side of the chest will be less than on the left side, and higher in pitch, the resonance on the left side being vesicular in quality, and lower in pitch. In other words, there is abnormal dulness on the right side. In the case of emphysema, the resonance at the summit of the chest on the right side, as in the other case, will be less intense than on the left side; but the disparity is due, not to a diminished in-

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tensity of the resonance on the right side, but to the greater increase of its intensity on the left side; and this increased intensity is accompanied by a vesiculo-tympanitic quality, and a higher pitch than on the right side. That in this case the resonance on the right side is actually increased; in other words, that on the right, as well as on the left side, the resonance is vesiculo-tympanitic, is shown by a comparison of the resonance over the upper with that over the lower lobe. In cases of emphysema, the standard of health, or an approximation thereto, is obtained by percussion over the lower lobes.

ARTIFICIAL ILLUSTRATIONS OF THE SIGNS OBTAINED BY PERCUSSION.

In conclusion, I hope it will not be deemed too trivial a matter for this occasion, nor an unworthy use of the "staff of life," to show how the signs obtained by percussion may be illustrated by imitating, out of the body, simply and roughly, the morbid physical conditions which these signs represent, using for this purpose, chiefly, the bread-loaf. A resonance analogous to the vesicular, as has been stated, may be produced by percussing a loaf of bread. The first of the four abnormal signs, namely, flatness, is easily enough illustrated. Any substance devoid of air suffices for an illustration. If a part of a loaf of bread be immersed in water for a few moments, the interstices become filled, and we have an imitation of pulmonary œdema; over that portion of the loaf there is flatness. If the absorption of water be not sufficient to fill the interstices, there is dulness. A single loaf may thus be made to illustrate flatness, dulness, and the normal resonance. If, for water, a solution of gelatine be substituted, and a part of a loaf be allowed to remain immersed until the gelatine congeals, we obtain a representation of solidification of lung analagous to that in cases of pneumonia. The three above-named signs may in this way be illustrated.

Dulness may be illustrated and compared with an imitation of the normal resonance, by introducing into one-half of a loaf of bread pieces of some solid material. In the present illustration I use sticks of candy. The elevation of the pitch of the dull sound may in this way be shown.

Tympanitic resonance is familiar, of course, from the percussion of the abdomen. The pitch, other things being equal, is higher the smaller the space containing air or gas. Artificially, a bladder, or an India-rubber bag inflated, gives an illustration of a tympanitic resonance. Comparing the resonance of an inflated bag of large size, with the resonance of an inflated lung, the higher pitch of the former may be observed. It is also shown by comparison with resonance from a loaf of bread.

Amphoric and cracked-metal resonance may be illustrated by percussing an India-rubber bulb, such as is used in Davidson's syringe, held down to the ear. It will be seen that the cracked-metal intonation requires a small space with free openings.

Tympanitic resonance within a circumscribed space is shown by removing a portion from the centre of a loaf of bread, leaving only the crust. The resonance over this space may be contrasted with that over the remainder of the loaf. By immersing the loaf for a few moments in water, the tympanitic resonance is brought into contrast with flatness on percussion.

Circumscribed flatness may be shown by filling the space which had given the tympanitic resonance with some solid material. Dough containing no air is a good material for this purpose.

The vesiculo-tympanitic resonance may be artificially illustrated as follows: Take a common loaf of bread. By means of a hollow cylinder remove longitudinal sections in one-half of the loaf. The spaces thus produced yield a tympanitic resonance, and the portions of bread which remain give the vesicular resonance. The vesicular and the tympanitic quality are thus combined with elevation of pitch, the tympanitic quality and the elevation of pitch corresponding to the number of sections removed.

ORIGINAL ARTICLES.

A CASE OF SARCOMATOUS "INFLAMMATORY FUNGOID NEOPLASM."

BY LOUIS A. DUHRING, M.D.,
PROFESSOR OF SKIN DISEASES IN THE UNIVERSITY OF PENNSYLVANIA.

THE following case of this rare and grave disease presented itself at my clinic for diseases of the skin at the University Hospital, on Novemer 14, 1882. The patient was exhibited to the class and the prominent features of the affection pointed out in the course of the lecture. The disease is of such rarity and interest as to entitle the case to a place on record, and I shall therefore, without further preface, briefly describe the most important symptoms. The history (for which I am indebted to Dr. Van Harlingen) states that the man, Charles Coyne by name, is a laborer, fifty-two years of age, and a native of Ireland. He enjoyed good health until he was thirty years old, when he was attacked with eczema of the hands, which gradually invaded the feet and other regions until in a short time almost the whole surface became involved. The eczema was always dry and slightly scaly, and itched severely.

About eight years ago the disease under consideration made its appearance in the form of a pea-sized tubercle situated over the left eyebrow. It was at first the same color as the surrounding normal skin, but afterwards became pale-red, and later somewhat purplish in shade. It, as well as all subsequent lesions, from the beginning, itched violently. It grew gradually, so that by the end of a year it was as large as a hazel-nut, and has since increased to its present size. About a year after the appearance of the tubercle referred to, a similar growth came upon the right eyebrow, which has followed the same course. Later, like formations, symmetrically disposed, manifested themselves behind the ears and the jaws, and several years afterwards they also made their appearance on the chest, and later on other parts of the trunk. On the chest there first appeared a highly inflammatory papular eruption, "resembling prickly heat," which after vanishing was succeeded by the present papular, tubercular, and nodular formations. Latterly, a few of the older lesions have softened and ulcerated superficially, but this tendency is as yet not marked. The hemorrhagic symptoms, seen on some of the patches of the trunk and in places on the extremities, have existed only during the past six months. The general health has been gradually failing, and he has lost weight during the last year. He is now in poor health; is spare and somewhat emaciated, and is weak.

Occupying the eyebrows and forehead are two

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perfectly symmetrical, circumscribed, irregularly shaped, lobulated tumors the size of common hen's eggs. They are soft, fleshy, and have a fungoid look, and are of a dusky, dull, pale-red or violaceous color, and have slightly excoriated and scaly, rough surfaces, the result of scratching. They are irregularly ovoidal in shape, and project about an inch beyond the forehead, giving a heavy expression to the face. Upon the surface of either growth there exist several furrows or linear depressions. The color is a dull-red with a purplish tint, —a pale raspberry-red.

Immediately above the tumor on the left side there is a flat, almond-sized and shaped, pale-pinkish formation, which when taken between the fingers is found to be defined in outline and firm in consistence. It is seated in the skin and subcutaneous connective tissue. It illustrates the earliest stage of the tumors

On either side of the head, occupying symmetrically the region in front of and behind the auricles, there exist extensive, highly developed masses of firm infiltration, having the same general character as the tumors of the eyebrows. The disease here extends from the temporal region down to the angles of the lower jaw, and is so pronounced as to cause considerable deformity. Behind the auricles it extends into the scalp as far as the parietal region, and thence on either side to the occipital protuberance. The posterior aspect of the neck is also similarly invaded. The whole mass is considerably raised and is irregularly furrowed, tuberculated, and nodulated, though not to the extent of the prominent tumors, such as those on the face.

In addition to the lesions described, there exist numerous, variously sized, rounded or flat, raised patches of infiltration, of a reddish-purple or brownish-red shade, scattered over the trunk, the most conspicuous of which are seated on the chest. These are five in number, two occupying the region of the nipples, and the others the sternum. They are large and prominent, varying in size from a walnut to an egg, and have a firm, fleshy feel, and a distinctly fungoid appearance. Upon various regions of the trunk, small and large, ill-defined patches of an inflammatory papular eruption (resembling disseminate papular eczema) exist, the seat of violent itching. More or less of this eruption is found over the whole surface, and appears to be eczematous in character, although peculiar in type. The general color of the skin of the trunk is a dusky-red, mottled, and in places violaceous or even bluish (hemorrhagic) in tint.

Upon the arms and forearms are likewise patches of tubercular infiltration, and also of the inflammatory papular manifestation, some of them being distinctly hemorrhagic. Upon the thighs and legs there are no large tumors or nodular formations, but here and there are patches of diffuse and papular infiltration, all of which are markedly hemorrhagic, so much so as to give the picture of purpura. Upon the hard palate, involving the uvula, is an elongate, circumscribed, raised, plate-like patch of infiltration, about half an inch in diameter. The voice is in consequence thick. The cutaneous lesions are all accompanied by intense itching, which is almost constant. The scratch-marks, everywhere visible, attest this statement, and it is chiefly for this symptom that the man now seeks medical advice.

The case represents the same disease that I brought before the American Dermatological Association four years ago, a full report of which case, together with the remarks made by the writer, and by members of the Association, may be found in the *Archives of Dermatology*, January, 1879, and January, 1880, with the provisional title of "inflammatory fungoid neoplasm." The inflammatory nature of the process was more marked in the first case than in the present one, although some of the lesions cannot be interpreted otherwise than as highly inflammatory. We shall find, however, without doubt, in the fully developed tumors the same formation as existed in the first case, viz.: a dense, small, round-cell infiltration involving the cutaneous and subcutaneous tissues, possessing the general features of sarcoma. The disease is liable to be confounded clinically with syphilis and with cancer, although the microscope would at once differentiate it from the latter disease. The prognosis is grave, for although the progress of the disease up to the present time has been slow, it will surely be more rapid within the next few years, and will prove fatal.

On the subject of treatment, I have but little to say. The various anti-pruritic remedies that are found useful in papular eczema, such, for example, as thymol, carbolic acid, and the tarry preparations, will in a measure relieve and control the itching. The larger growths that occasion inconvenience may be removed with the knife, or, where possible, by the galvano-cautery wire, a much better method of operation. The tumors are vascular, and by means of the galvano-cautery the annoyance from hemorrhage is lessened. The wound will probably heal without difficulty, and a recurrence of the growth at the point of the incision need not be feared, this opinion being based on my experience in the other case referred to.

THREE CASES OF DIABETES INSIPIDUS
SUCCESSFULLY TREATED BY ERGOT.

BY C. S. LACY, M.D.,
OF MACEDON, N. Y.

WITH the view of adding further evidence in favor of the value of ergot in the treatment of diabetes insipidus, I desire to record the following cases:

CASE I.—J. S., æt. 18, family history good, and he had previously enjoyed good health, consulted me Sept. 10, 1877, "for some trouble with his kidneys." Some four weeks before he had attended a festival, and indulged in ice cream quite freely, and, as he expressed it, "had not been well since," having passed large quantities of urine ever since, being obliged to get up in the night several times to micturate. Urine very light colored, acid reaction, specific gravity 1005, neither albumen nor sugar. The amount voided during twenty-four hours was 180 ounces. Put him upon valerian four times daily.

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Sept. 25.—Passed 220 ounces of urine, specific gravity 1008. He had become very much weakened, pale, and emaciated; loss of appetite; pain in the small of the back. In consultation with Dr. B., determined to try bromide of potassium 15 to 20 grains, three times daily.

Oct. 10.—Urine passed, 250 ounces; no traces of albumen or sugar; face and ankles œdematous; great weakness and prostration, shortness of breath; indigestion, with acid eructations. He and his friends had given up all hopes of his recovery.

In looking over my journals with a view of finding some new "points" upon the treatment of this case, I found in the August number for 1875, of the *Monthly Abstract of Medical Sciences*, Dr. Da Costa's account of a case treated by ergot. The 15th of October I put him upon drachm doses of the fluid extract of ergot, three times daily, and increased to two drachms, three times daily. Its effects were marvellous, there being a steady diminution in the daily amount of urine voided, and a marked improvement in the patient's health. He may be said to have been well the first of January, 1878. There was a steady decrease in the amount of urine from the first giving of the ergot. The amount passed at the time I began giving the ergot, Oct. 15th, 240 ounces; Oct. 18th, 195 ounces; Oct. 25th, 130 ounces; Nov. 2d, 100; from this time to the 1st of Jan. the highest amount passed was 80 ounces; Nov. 20th, and from the time I ceased treating him, Jan. 1st, 1878, to the present time, he has been a well man, and, as over four years have elapsed, I think we are warranted in claiming for ergot the credit of the cure.

The history of the other two cases which I have to relate only confirm the efficacy of ergot in the treatment of diabetes insipidus.

CASE II.—Young man, 23 years of age, farmer, of good family history; had been troubled two months when he consulted me. June 15, 1879, he passed on an average 160 ounces of urine daily, slightly acid in its reaction; specific gravity, 1003; no traces of albumen; no sugar. He said that he first noticed the trouble after some heavy work—plowing, etc.; troubled with indigestion; bowels constipated; no disease of heart, lungs, or other organs; temperature normal; and he complained of nothing but a "tired feeling," being very much prostrated; pale and emaciated, having lost some twenty-five pounds in weight during the two months. The amount of urine voided corresponded nearly with the amount of fluids taken. Ordered him to take drachm doses of the fluid extract of ergot four times daily, and gradually increased the quantity to two drachms three times daily. Much improved in a few days. Not obliged to get up at nights to micturate; and, as he expressed it, "felt like a new man." Upon the fifteenth day of treatment the amount of urine passed was 80 ounces; thirtieth day, normal; and from the day I ceased treating him, the 20th of August, 1879, to the present time, he has been a strong, robust man.

CASE III.—J. R., a boy, some twelve years of age. His mother has asthma; otherwise the family history is good; and up to the time of my treating him, March 10, 1880, he had been a very healthy child. His parents had noticed for some time that he passed more urine than seemed natural, having to get up during the night several times to micturate; was becoming pale and emaciated; no life or ambition; complained of weakness in back, loss of appetite, etc. His parents attributed his condition to his growing rapidly; but, finding he did not improve, brought him to me. There was no disease of any of the organs. He passed from eight to ten pints of urine daily, which far exceeded the amount of fluids taken. Specific gravity, 1005. He being very fond of milk, I put him upon a milk diet almost exclusively; gave him ergot, half drachm, four times daily; increased to one dracm; also gave cod-liver oil three times daily; very much improved at the end of the tenth day; did not have to get up during the night; and the amount of urine passed was four pints; and from that time until the middle of May, 1880, he improved. Urine normal; appetite good; gained in flesh, so that he did not look at all like the pale, puny boy that first visited me. He has enjoyed good health up to the present time, with the exception of a severe attack of dysentery, in the fall of 1881, from which he made a good recovery.

I think these three cases will go far to establish the claims of Dr. Da Costa for ergot. In the treatment of diabetes insipidus, like him, I do not contend that it will always cure, but that it merits the fullest confidence in this disease.

HOSPITAL NOTES.

BOSTON CITY HOSPITAL.

(Service of W. C. B. FIFIELD, M D.)

SCIATICA CURED BY STRETCHING THE SCIATIC NERVE.

(Reported by ROYAL WHITMAN, M.D., House Surgeon.)

THE patient, a native of Boston, 39 years of age, entered the hospital October 19, 1882. His history was as follows:

His first attack of sciatica occurred in 1872, and was induced, he thinks, by exposure to wet while working at his trade, that of a piano polisher. Each winter since this time, he has been confined to the house from three to six weeks with attacks of sciatica in the right leg, which have gradually increased in severity. Last July he had an attack of unusual severity, for which he entered the medical side of the hospital. At this time he could not fully extend the leg on account of the stiffness and pain, and was obliged to walk in a stooping position. He remained at the hospital for six weeks, and was then discharged partially relieved, on crutches. He remained at home for five weeks, and then re-entered the hospital. At this time he was unable to dress himself on account of the extreme pain in the leg and stiffness in the back. He remained seven weeks, and was then discharged partially relieved. He continued in about the same condition during the summer, being unable to walk without crutches.

He was then treated at the out-patients' department of the Massachusetts General Hospital, where ether was given, and an attempt made to stretch the nerve by forcibly flexing the leg upon the body. This was, however, followed by no relief, and the operation of

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stretching the nerve was advised, and he accordingly entered the hospital. At this time his pain was intense, and the patient, as he expressed it, "longed to have a knife put into his leg." On the following morning ether was given, and Dr. Fifield made an incision six inches in length, commencing at a point two inches below the tuberosity of the ischium, over the biceps muscle. This muscle, with the semitendinosus, was drawn to the outside, and the nerve was exposed. A sound was then passed beneath it, and it was pulled three times with sufficient force to lift the leg from the table. There was no hemorrhage. The wound was united with deep silver sutures. The operation was done under spray, and occupied but a few moments.

Upon the following day the course of the sciatic and its larger branches could be traced by lines of ecchymoses under the skin. The wound healed rapidly, and the patient was discharged well on the nineteenth day after the operation. There has been no pain or stiffness since; and the only abnormal sensation noticed was a slight numbness in the calf of the leg.

MEDICAL PROGRESS.

NERVE-STRETCHING IN LOCOMOTOR ATAXY.—In the *Revue de Médecine* (Nos. 10 and 11) there is a critical review of the results of nerve-stretching in locomotor ataxy and other diseases of the spinal cord With the latter class of cases we have at present nothing to do, but we think the results of inquiry into the former class of cases ought to be made known. In the review mention is made of 54 cases, published in various parts of the world, where the sciatic nerve was stretched for locomotor ataxy. Of these no fewer than 6 died, and in 3 cases the death was directly attributable to the operation. In 19 instances the patient derived no benefit whatever from the operation. In 18 instances there was either alleviation of one or more symptoms or some temporary benefit, or there was immediate benefit from the operation but the ultimate result was not known. In the remaining 11 cases a lasting improvement was noted. Thus the outcome of this inquiry is that in about 54 per cent. of the cases the operation was followed by permanent or temporary benefit, and in 46 per cent. no good resulted from the operation, death ensuing in 11 per cent. of the cases. We must note the fact that in one instance Langenbuch had twice performed this operation with some benefit when the patient died after the third operation, and Westphal found the spinal cord perfectly healthy. This certainly was not the case in any of the fatal cases referred to above, but we can not help feeling that there is a possibility that some of these successful cases were not really cases of disease of the spinal cord at all. The operation is one which has not found much favor in this country, and in London it has found very few advocates indeed. We think the statistics we have given above will not tend to increase the favor of the operation in the eyes of those who make the welfare of their patients their first consideration.—*Medical Times and Gazette*, December 2, 1882.

CARDIAC FORM OF TYPHOID FEVER.—PROF. BERNHEIM, of Nancy (*Lyon Méd*, Oct. 8, 1882) read a paper before the French Association on this subject. He distinguishes between the cardiac form proper, as he calls it, and those other forms of typhoid in which the symptoms of cardiac disease are simulated, or in which disturbances of the pulmonary circulation are manifested His cardiac form is marked by an acceleration of the heart's rhythm, without any organic lesion. The increased frequency of the pulse is not accompanied by any proportionate elevation of temperature. The symptoms appear at the beginning of the attack, and are due to a toxic action of the typhoid poison on the motor centres of the heart itself. It is a rare form. Bernheim has only met with six instances among 250 cases. On the other hand, it is a very grave form. No advantage is obtained by administering stimulants like alcohol and ether, and the use of digitalis is dangerous.—*Practitioner*, December, 1882.

TRICUSPID CARDIAC MURMURS HEARD AT THE APEX.—DR. DUROZIEZ has studied a number of cases in which there were tricuspid murmurs, and states that ordinarily tricuspid murmurs can be heard over all the surface of the right ventricle, that is to say, over all the anterior surface of the heart. The points of maximum intensity vary, sometimes being below the sternum, sometimes at its inferior border, and sometimes at the apex. When only heard at the apex, they are often wrongly attributed to the mitral valve; the latter murmurs, however, are also to be heard in the axilla and in the back, while the tricuspid murmur is never to be heard to the left of the apex, in the axilla, or in the back.

Since the right ventricle, equally with the left, contributes to the formation of the apex, there is nothing to prevent tricuspid murmurs being audible at this point. A tricuspid murmur may exist without a venous pulse, and *vice versa*. A humming murmur is more frequently tricuspid than mitral, and indicates a very narrow insufficiency and energetic ventricle.—*L'Union Médicale*, November 26, 1882.

TRACHOMA.—At the recent meeting of the Ophthalmological Congress at Heidelberg, PROF. SATTLER made a communication upon the origin of trachoma, which he believes to be caused by micro-organisms. His more recent experiments have fully borne out the results he obtained in 1881, which were read before the Heidelberg Congress in September of that year. He has again succeeded in cultivating the micrococci, and producing positive results by inoculation. The organisms are circular, are never seen with zoöglæa, but always singly or in pairs, separated by a small interspace. Inoculation of the third generation of a cultivation produced trachoma in the human conjunctiva. These micrococci alone produce trachoma; all other substances used failed to do so.

In the discussion which followed, Baumeister and Kerschbaumer advocated the use of iodoform in contagious conjunctival affections. Samelsohn remarked that he had seen the bacillus of tubercle in tuberculosis of the iris, and Leber that he always now finds micrococci in hypopyon keratitis.—*Ophthalmic Review*, December, 1882.

SYPHILITIC ENLARGEMENT OF TONSILS.—An abstract of the conclusions of DR. PAUL HAMONIC is to be found in the *Deutsche Med. Zeitung*, No. 45. Hamonic distinguishes, during the secondary stage of syphilis—1. *Simple hypertrophy*, which is analogous to the swelling of lymphatic glands, is tardy in its development, and, as it occasions no symptoms, is often overlooked. Both tonsils are almost always affected, though to a different degree. The enlargement takes place forwards, bulging the anterior pillar of the fauces, and rarely gives rise to deafness. The tonsils are hard and somewhat elastic; the normal depressions on their surfaces are exaggerated. The uvula tends to go over to the larger tonsil. Sometimes the tonsil may be reduced in size by anti-syphilitic treatment. 2. *Hypertrophy associated with angina.* In this there is not so much fever as in ordinary acute angina; the duration is variable, and relapses are very liable to happen. 3. *Hypertrophy complicated with syphilides.* Most fre-

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quently the syphilide appears on the tonsil and the anterior pillar of the fauces. When syphilis affects a previously scrofulous tonsil the enlargement is very great, of pale color, often spongy and with large crypts, there is considerable pain, the voice becomes nasal, and the hearing, taste, and smell are altered. The course is generally chronic, and there is a great tendency to recurrence. Ordinary tonsillitis and sore throat may supervene even when the tonsils are syphilitically enlarged, but then, though peritonsillar suppuration may occur, it would appear that the tonsil itself never suppurates. Hamonic states that there is no objection to excision of the syphilitic tonsils if they be very large. —*Medical Times and Gazette*, December 2, 1882.

GASTROTOMY IN EXTRA-UTERINE PREGNANCY.—DR. N. PHENOMENON (*Arch. de Tocologie*) reports the case of a peasant woman 22 years of age, who illustrated this accident. She began to menstruate at seventeen years of age, and this function was always performed regularly and normally. She married at eighteen years of age and continued in good health: she came to the author's clinic in January, 1881. Twenty-two months previous to that time the menses first failed to appear. The customary symptoms of pregnancy followed, even to the perception of fœtal movements. Before the expiration of the customary nine months of gestation, the fœtal movements became more feeble, she experienced severe pains in the kidneys and in the lower part of the abdomen, and occasional paroxysms of fever. The time for delivery arrived, but no labor-pains appeared. The abdomen continued to increase in size for a month or two longer, and then remained *in statu quo*. During the first three-fourths of the year which followed she had occasional attacks of fever and in the intervals was able to attend to her household duties and even to work in the field. Then an abscess formed and pointed at the navel, and a quantity of pus was discharged. Extreme weakness followed, and in this condition she appeared at the author's clinic. The tumor presented the following characteristics: 1st. Its contour was very well defined. 2d. It was solid. 3d. It crepitated upon palpation. 4th. It was painful to the touch. 5th. It was immovable, but was not attached to the abdominal walls. A fistula existed at the navel, from which pus exuded. The diagnosis made was that of abdominal pregnancy. The abdomen was opened by M. Horwitz, and the cyst was found to have no adhesions anteriorly of any extent. The putrefied fœtus was removed, and the cyst, which was firmly fixed at its sides, was secured by the sutures which closed the abdominal wound. The operation was performed with antiseptic precautions, and the patient made a good recovery.

As deductions from this case the author observes: 1st. If the pregnancy continues through the customary period without mishap, there is no occasion for interference, providing always that watchfulness against accidents is to be observed. This is contrary to the opinion of Güsserow, who advises operation at the beginning of the eighth month. 2d. In case of the occurrence of some grave, complicating accident, equally dangerous for the fœtus and for the mother, as, for example, rupture of the fœtal sac, or internal hemorrhage, gastrotomy is indicated to be performed at once. This is contrary to Spiegelberg's experience and advice, and Parry estimates that seventy per cent. of the mothers die after such operations. The author replies that statistics are not reliable, for the cases are never identical where the operation has been performed. 3d. If the normal period of pregnancy has passed, the fœtus has died, and the case is presented to us for decision, the course of action must vary in accordance with the pathological process, which differs in every case. Two issues are customary with such pregnancies, petrification or the conversion of the fœtus into calcareous material, and a slow process of suppuration by means of which the contents of the fœtal sac are discharged through fistulous openings. The former is the more desirable end, for it does not tax the vital resources as the latter does. The author does not believe in waiting for the formation of a fistula before operating, especially when the cyst is near the abdominal wall. One must always remember the grave complications which are possible if the cyst is allowed to suppurate. Of the active or the passive modes of treatment, then, the author is decidedly in favor of the former.—*Amer. Journ. of Obstetrics*, December, 1882.

THE DIAGNOSIS OF PULMONARY SYPHILIS.—In the *Wiener Medizinische Wochenschrift*, No. 46, an abstract of an alleged case of pulmonary syphilis may be found recorded by DR. GUNTZ. The previous history of the man showed that two years after infection an eruption appeared on the skin, and a year later cutaneous ulceration was noted; five years after infection the lung trouble was first noticed. The left lower lobe was affected with a circumscribed infiltration, the symptoms being cough and shivering. The dulness to percussion had not disappeared after a period of eighteen months' good general health, at the end of which the patient began to spit blood. This was soon followed by an increase in the size of the infiltrated area. For six days the expectoration consisted of chocolate-brown lumps; later, muco-purulent sputa were brought up. The pulse was 90; the breathing 26 to 32 per minute; but there was no fever. The physical signs underwent no appreciable change; there were dulness and pectoriloquy with some râles. The sputa were hardened in alcohol, and had become tough and membranous—some, nevertheless, were lighter than water. The microscope revealed a fibrillated stroma, with finely granular *débris*, old and young cells and nuclei, here irregularly scattered, there arranged in groups. No pulmonary tissue or vessels were detected. Some sputa were sent to Lancereaux, who also regarded the microscopic elements as of a gummatous nature.—*Medical Times and Gazette*, December 9, 1882.

HYPODERMIC INJECTIONS OF BLOOD IN GASTRIC ULCER.—PROF. BERNUTZ (*Gaz. des Hôp.*, 64, 1882) has successfully treated two patients suffering from simple gastric ulcer with subcutaneous injections of blood. They were both much reduced, owing to incessant vomiting, everything swallowed being at once rejected. The blood, taken from the femoral artery of a large dog, was received in a warm vessel, and at once injected by means of a warmed Dieulafoy syringe. In the first case the blood was promptly absorbed, and sufficed to keep up the strength for two days. As the patient grew strong the vomiting ceased, and milk diet was resumed. Gradually the appetite improved and food of all kinds was well borne and digested. Fowl's blood was once tried, but its good effects seemed less lasting. The second case was similar, but the patient here was even farther gone through simple inanition. Here the first injection was not absorbed, and a phlegmonous inflammation started from the injection wound and spread over the arm. The gastric difficulties seemed however to decline as the inflammation of the arm advanced. The obstinate vomiting ceased, and with it the gastric pain; so that the patient was presently able to enjoy the ordinary hospital diet. In this instance the blood could have little if any nutritive value, as it was not absorbed. Prof. Bernutz is inclined to think the severe local inflammation in the arm may have acted beneficially in some reflex way on the gastric lesion.—*Practitioner*, December, 1882.

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SATURDAY, JANUARY 6, 1883.

THE TREATMENT OF SYMPTOMS INDICATING DANGER IN THE ANÆSTHETIC STATE.

THE anæsthetic state is a condition of danger. It means the suspension of the functions of animal life, the organic functions, especially respiration and circulation, continuing. This primal fact, then, indicates the danger to be provided against. *Cæteris paribus*, chloroform endangers the circulation; ether the respiration. The measures of prevention, as well as the remedies, must be directed accordingly. This law is not absolute in its application. Sometimes chloroform paralyzes the respiratory centre; rarely ether paralyzes the heart. However, so uniformly is the rule applicable, that the injunction in administering chloroform is to watch the pulse, and in giving ether to watch the respiration. Disregarding, for the present, exceptional conditions, the treatment of dangerous symptoms in the anæsthetic state resolves itself into the administration of remedies to prevent or relieve the tendency to cardiac paralysis on the one hand, or to respiratory failure on the other.

The first prophylactic measure on which we insist is the relinquishment of chloroform as the ordinary anæsthetic. We do not deny that there may be special conditions justifying the use of chloroform; it may be necessary when operations are to be performed by the light of an ordinary candle or lamp, since ether vapor forms with atmospheric air an explosive mixture; it may be preferable in obstetric practice, as the anæsthetic agent to assuage the pains of labor, and for various obstetrical operations. With these limitations, the rule of practice should be to employ ether to induce the anæsthetic state under the conditions ordinarily requiring it. The next prophylactic measure consists in the use of morphine subcutaneously—before beginning the inhalation, according to Bernard; after the inhalation has proceeded far enough to induce analgesia, according to Nussbaum. The method of Bernard seems to us the better, because the effect of morphine prevents the sudden failure of the heart sometimes induced by a few whiffs of chloroform vapor, facilitates the inhalation by lessening the irritability of the air-passages, and diminishes or prevents the stage of tetanic rigidity, with its stertorous breathing and cyanosis. We do not pretend to affirm that this method of "mixed anæsthesia," as it has been entitled, has received the unanimous assent of surgeons; but our belief is that the experience thus far accumulated is largely in favor of its utility, and we have the high authority of Dr. J. C. Reeve in its support.

To avoid accident, it is in the highest degree important to ascertain the condition of the subject to be anæsthetized. The habits of life, the absence of cerebral, of pulmonary, and of cardiac diseases of a nature experience has proved to contra-indicate the use of anæsthetic agents, should be ascertained before beginning the inhalation. This survey and scrutiny of the patient should not be limited to a casual examination of the organs supposed to be concerned—it is usually satisfied by a superficial examination of the chest; but it should be made a thorough investigation of the life history in its pathological aspects, as well as a minute study of the somatic state at the time.

We have already, in our comments on fatal cases, alluded to the faults of administration which have been responsible in a large degree for the accidents. It would be a waste of our space and of our readers' patience to reiterate those points already set forth with sufficient particularity in respect to the mode in which anæsthetic vapors should be inhaled. The treatment of the danger-symptoms may, however, require a further exposition of our views. As these danger-symptoms are divisible into causes of cardiac paralysis and causes of respiratory failure, we have thus a natural classification for the arrangement of the data. The quickest mode of dying is by arrest of the heart's action. Unfortunately, in a large proportion of cases, the heart is incapable of further action when its embarrassment is ascertained, and hence the wisest measures may be futile. We must, in advance of the expression of our own views, protest against a practice which has become too common: namely, the subcutaneous injection of digitalis. If this agent acts rapidly enough to affect the circulation, the result must be disastrous, since it induces such a rise in the arterial tension as to im-

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pose additional work on the heart. A remedy acting in the opposite way—to lower the tension at the periphery and thus diminish the resistance to the propelling power of the heart—seems, *a priori*, to be more suitable, and experience confirms this theoretical view. The subcutaneous injection of amyl nitrite has appeared to be of immense service in some cases of threatened cardiac paralysis. From three to five minims are injected beneath the skin at any point, or, if respiration is going on, the effect can be more speedily procured by inhalation. The good effect consists in the diminution of the peripheral pressure, which permits the heart to distribute the blood more easily, and thus to supply more quickly and fully the centres of organic life.

The intravenous injection of ammonia is, also, a promising expedient to arouse the heart. The Australian experience with this practice has abundantly proved that the intravenous implantation of one drachm of aqua ammoniæ, diluted with two drachms of water, is perfectly safe, and a powerful cardiac stimulant. The time for its administration is when the action of the heart has become weak and fluttering and a stoppage imminent. Any convenient vein may be selected; the needle of the hypodermatic syringe is thrust directly into it, and the ammoniacal solution is promptly, but without violence, delivered in the blood stream. A half-drachm should be administered at a time, the repetition of it being governed by the effect.

Another agent having decided power to increase the heart's movements is atropine. Although this may not act as speedily as the intravenous injection of ammonia, it is next in respect to promptness of effect. As a rule, however, it is preferable to administer atropine in combination with morphine before beginning the inhalation of the anæsthetic vapor.

Acupuncture and electro-puncture of the heart have also been suggested, and, indeed, used in some cases, but after a careful survey of the whole ground we are forced to the conclusion that these expedients are rather injurious than beneficial. To puncture the heart—especially to send a faradic current through a needle inserted into its substance—must cause a more or less severe shock. All the world knows the effect of shock on the cardiac movements. Can such manipulation fail to depress the heart's functions? Again, the exact position of the perforating needle should be known, since the inhibiting ganglia may be stimulated rather than the motor. To stimulate the former, is to stop a heart which is in action.

When the failure is respiratory—the chief danger in ether inhalation—the respiratory centre should be supplied with blood as quickly as possible. The method of Nélaton, of inversion of the body, accomplishes this. The tongue falling back in the throat forces down the epiglottis, and the violent inspiratory efforts increase the danger by converting the epiglottis into a valve. Hence, to draw out the tongue strongly is a most necessary expedient for freeing the entrance to the larynx. It accomplishes more. The strong traction on the basal attachments of the tongue exerts a reflex effect on the respiratory centre, and this, according to some, is the chief use of the practice. Faradization of the chest muscles, inhalation of ammonia, irritation of the Schneiderian mucous membrane by a bit of paper dipped in aqua ammoniæ, are the means resorted to for reflex stimulation of the respiratory centre. Dashing cold water over the chest exposed to cold air from an open window is one of those doubtful measures often resorted to in the excitement of the moment, but which, of little use at the time, is apt to be followed by bronchitis or pneumonia.

Certain stimulants of the respiratory centre may be employed subcutaneously. These are atropine and strychnine—the former generally preferable, because more prompt. The alcoholic stimulants so often used hypodermatically are of doubtful utility, although apparently beneficial in some cases. As ether and chloroform are derivatives of alcohol and act in a similar manner on the centres of organic life, to administer the latter as a remedy for depression or arrest of function produced by the former seems to be an irrational procedure, and may, indeed, in any doubtful case, determine the result unfavorably, but the counter-irritant effect of the injection may, however, possibly exercise a favorable influence.

SYMMETRICAL GANGRENE OF THE EXTREMITIES, WITH ALBUMINURIA.

AT a recent meeting, Oct. 27th, of the Medical Society of Hospitals in Paris, M. ROQUES reported a case of symmetrical gangrene of the hands and feet, accompanied by albuminuria, in a woman who was also the subject of intense congestion of the right lung and dyspnœa. To these symptoms were added enlarged liver, irregular and strong cardiac impulse, and dimness of vision, but there was no retinitis albuminurica. For three months she had at times experienced a decided sensation of coldness of the surface of the hands, the fingers becoming pale and apparently dead; three days before admission the same phenomena appeared on the surface of the great toe of the right foot, and four days later on the same toe of the left foot. The skin of these toes presented a purplish hue, which disappeared upon pressure, returning slowly upon its removal; they were cold, painful, and deficient in tactile sense. There were also on the dorsal surface of the feet, and on the external surface of

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the leg and thigh, irregularly mottled patches, but no trace of œdema. These lesions were absolutely symmetrical but more marked upon the left side. There was an evident but feeble pulsation in the two pedal arteries. In the upper extremities the same conditions were present: all the fingers, except the thumb, were cold, insensitive, and purple; the right ear was dry and shrivelled; the hands and arms were mottled with livid patches. Some days later the little finger of the right hand and the right great toe became entirely sphacelated. At times the heat returned in the extremities, the livid patches disappeared and the sensibility returned, but a fresh attack of the "local asphyxia" repeated the same phenomena. The dyspnœa and irregularity of the heart increased, and she died twenty-eight days after admission. At the autopsy there were found splenization of the right lung, hypertrophy of the heart, a circle of soft villous vegetations on the aortic valves, but no mitral disease. There was a nutmeg liver, the spleen was healthy, and the kidneys were the seat of marked interstitial nephritis. *There was no atheroma of the pedal or radial arteries.*

The question naturally arises, Can there be any causal relation between these two conditions? Raynaud and Débove have noted albuminuria in several cases of symmetrical gangrene, and there have been observed in Bright's disease certain phenomena which are apparently due to vaso-motor influences, such as the localized œdemas which come and go suddenly and seem to be associated sometimes with traumatic nephritis of one kidney; such also are the phenomena of the "dead finger" and varied forms of pruritus recently noted by Dieulafoy. M. Roques is inclined to believe that the union of these two conditions is a coincidence, but admits that further observations are required. Such would indeed seem to be the only inference which can be drawn.

DR. M. WEISS of Prague, has recently published in the *Wiener Klinik*, a very interesting monograph on symmetrical gangrene, in which he collates seventeen cases, including a very carefully studied one of his own. The first of these cases was recorded in 1729, the last in 1882, so that it will be seen to be a very rare disease. It is defined by him as an affection of the central nervous system, characterized clinically by numerous vaso-motor, trophic, motor, sensory, and special sense derangements, while it receives its distinctive stamp from a symmetrically occurring gangrene of parts of the hands and feet (phalanges), and more seldom of other parts of the body. The term "symmetrical gangrene" was originally applied to the condition by Raynaud, who first described it in 1862; and although from the fact that the term recognizes but a single, yet the most striking, symptom, Weiss considers the title "neurotic gangrene" more appropriate, he retains Raynaud's title.

That the case described by M. Roques is one which may be properly included in the category of symmetrical gangrene we are by no means certain. In the first place, the disease seems not to have been usually fatal as in the present instance, but is paroxysmal, the paroxysms beginning with pain, which is often extreme, in circumscribed spots on the affected extremities. This is succeeded by a gangrene which may be superficial or may involve an entire phalanx; the separation of the slough being succeeded by a repair which is proportional to the destruction. Along with this are numerous other local and general derangements which we have no space to detail. Such a paroxysm is succeeded by others at intervals of a month or more, in some instances coinciding with the menstrual period. The immediate cause of the gangrene must, however, be the same in each instance. The symmetrical character of the process excludes the usual local causes of gangrene, such as obliteration or obstruction of afferent vessels, embolism, mechanical, chemical or thermic agents, etc., and there was no atheroma or ergotism; so that there remains only the effect of a weak heart or some one of the trophic influences which can alone account for symmetrical gangrene; and a heart so feeble as to be the cause of symmetrical gangrene in the extremities is scarcely likely to be present in a woman of 41, even if there be aortic obstruction, as may have been the case here. From such trophic influences must also be excluded vaso-motor spasm, because striking as are the functional results of such arterial contraction in experiments on animals, gangrene has never been produced by irritation or stimulus of vaso-constrictor nerves. They must, therefore, be trophic in the strictest sense of the term. Now no such slowly operating trophic influences have ever been known to exist in interstitial nephritis, or in any form of Bright's disease, and we, therefore, conclude that the association of the two conditions is a purely accidental one.

FETID BRONCHITIS, AND ITS TREATMENT BY THE HYPOSULPHITE OF SODIUM.

UNDER the above title, DR. E. LANCEREAUX, in a recent issue of the *Bulletin de Thérapeutique*, treats of fetid bronchitis chiefly from the therapeutical point of view. The real causes of the malady are not fully understood. Dilatation of the bronchial tubes, and accumulation in the depôts thus formed, of the muco-purulent secretion, is probably the first step, decomposition of the muco-pus under the agency of atmospherical germs being then produced. Butyric and valerianic acids are amongst the odorous substances thus formed. Dr. Lancereaux regards this a most fatal malady—an opinion

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in which all experienced physicians will concur. It is well known that the lesions are not limited to the bronchi, but extend to the peri-bronchial connective tissue, and to the pulmonary parenchyma ultimately. So fatal is it, that all of the subjects of this disease admitted to *la Pitié*, died, when treated in the orthodox way, with alcohol and quinine. Far different has been the result, when treated with hyposulphite of sodium. His observations are based on twenty cases—fourteen treated by the old method—which proved fatal, and six treated by the hyposulphite, all of which recovered. He gives the details of the latter.

The mode of administering the remedy is very simple. It consists in giving 4 to 5 grammes (about 62 to 80 grains) in an ordinary solution daily for a month to six weeks, after which the amount used will be determined by the conditions present. The digestive functions are improved rather than embarrassed, and no derangements of any kind are to be referred to its action. It does not produce the desired result immediately, but several days, often a week, will elapse before the curative results are manifest. The first effect of a therapeutical kind observed is a diminution in the odor of the sweat and of the muco-pus brought up from the bronchi. The amount of the secretion diminishes, and its character changes, becoming more distinctly mucous and viscid. Following this lessening of the expectoration and disappearance of its fetidity, the appetite improves and the weight lost by the continuance of the disease is regained, and the bodily forces are restored to their wonted activity. The time required to effect these marvellous results varies somewhat, but the rule appears to be that in from six weeks to three months the changes in the condition of these subjects, above described, will have taken place. Sometimes, it is true, in the course of the treatment, there may be a return of the fetidity, but it will be brief, and the evil odor will gradually disappear and permanently.

How is the cure of these cases effected? is the inquiry made by Dr. Lancereaux. There can be, at present, no correct answer made to this question. To offer a satisfactory solution of the problem, it will be necessary to know what changes the alkaline hyposulphites undergo in the system, and the mode of their elimination. To effect the cure of such a condition, they must act, not only on the process of decomposition in the muco-pus, but on the organic changes to which the pathological exudate owes its origin. It is, however, of comparatively inferior consequence how the medicament acts.

Does it cure? If so, we are put in possession of a most valuable agent, able to cure a malady hitherto beyond the resources of art. We need now further clinical experience. If Dr. Lancereaux's observations are confirmed by others, if new facts of corresponding significance are brought forward, we may safely postpone the consideration of the *modus operandi* to a more convenient season.

IN the December number of the Brooklyn *Annals of Anatomy and Surgery* the editors indulge in some personal reflections not inappropriate to the successful close of the third year of its publication.

The *Annals* began as a modest record of the work of the young but vigorous Anatomical and Surgical Society of Brooklyn, whose example we commend most heartily to other less enterprising communities. But it has now, as it were, cut the umbilical cord, and becomes an entirely independent journal, for which the editors alone will be responsible.

The announcement for 1883 is very attractive in the list of names of those from whom papers are expected, and Dr. Geo. J. Fisher, we are glad to see, will continue his delightful and scholarly sketches of the "old masters." We notice with pleasure, also, that the proceedings of the New York Surgical Society will appear in the *Annals* as well as in THE NEWS. This cosmopolitan publication of their proceedings by the various medical societies, we are happy to observe, is becoming very common. Certainly it bears good fruit in the stimulus to writers, who find that their papers appear promptly, and that their circle of readers is increased tenfold. By the ancient method they quietly slept for weeks or months till the "Proceedings" appeared in the glory of a bound volume—which, in most instances, was immediately put upon the shelf—or were seen solely by the readers of the local journal that had the exclusive right to their publication.

THE New York State Board of Health has officially declared: "That the use of privy-vaults, privy-pits, and cesspools, is seriously affecting the public health;" and further, "That all excreta should be removed from the neighborhood of human dwellings, instead of being stored up near them in pits, vaults, or pools, to poison the water, earth, and air." In some European cities the abandonment of the old cesspool system has already been accomplished, and in others the measure is being seriously contemplated. A Commission of Inquiry is now endeavoring to solve the problem of providing Paris with a system of sewerage which shall take the place of the older plan, in which the excreta are detained in permanent cesspools, generally under the houses, and the more modern system in which movable reservoirs are made use of for catching the solids while the liquids escape into the sewer. Dr. E. Vallin, Professor of Hygiene at Val de Grâce, says that every one is agreed, at least in principle, upon one point,

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namely, that permanent cesspools, as forming a structural portion of dwelling-houses, should be superseded. The question upon which there is still a difference of opinion, relates to the choice in the modifications of the water-carriage system which is to form the substitute. In this country this much-needed reform is likewise being agitated, and its accomplishment is only a question of time.

PROFS. SCHÜTZ and LOEFFLER have just succeeded, we learn from the *Deutsche Medicinische Wochenschrift* for Dec. 16, in isolating a micro-organism in subjects affected with farcy; they have succeeded in growing several generations in culture fluids, and in transmitting the disease by inoculation to healthy horses. The details of this discovery, which has just been made in the *Kaiserlich Deutsche Gesundheits Amt*, in Berlin, have not yet been published.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting December 12, 1882.

THE PRESIDENT, DR. T. M. MARKOE, IN THE CHAIR.

EMPYEMA; PERFORATION OF THE BRONCHI AND DIAPHRAGM; RECOVERY.

DR. F. LANGE presented a male patient, 19 years of age, with the following history. He was a healthy member of a healthy family, and a student. After repeated attacks of gastric disturbance in the summer of 1881, he was taken, September 2, with severe gastro-intestinal catarrh, which became so obstinate that he was confined to the bed from the eighth to the fifteenth of that month, and was under the care of Dr. Henkel. He had only a moderate fever, but gradually lost flesh and strength. Very soon after this, a deep-seated abscess developed in the inner aspect of the arm, and it seemed to take its origin in the muscular substance of the biceps. Dr. Lange opened the abscess in the presence of Dr. Henkel on the 26th of September, and the wound healed without further trouble, but the patient did not rally entirely. On the 7th of October he was taken quite suddenly with severe pain in the lower part of the thorax on the right side, and went to bed again. Very soon afterwards the physical signs of pleuritic effusion became apparent, and, in a comparatively short time, the level of the fluid was as high as the middle of the scapula. The presence of crepitus and near bronchial breathing above the line of dulness made it probable that the inflammatory process, to some extent, affected the lung tissue. The area of dulness was considerably smaller in the axillary region than behind, and was almost absent in front. There was continued fever with exacerbations at night, and the patient had no appetite and lost flesh and strength rapidly.

On the night of the 19th of October, perforation of the bronchi occurred and large quantities of pus were expectorated. On the following day the patient felt much relieved, although he was very exhausted. Dr. Henkel then found the physical signs of pyo-pneumothorax, especially the metallic sounds. The patient did not rally as had been expected, the fever did not cease, and the debility increased. It was impossible to make a thorough examination of the chest on account of the extreme weakness of the patient, but it was ascertained that the respiratory murmur could be heard from above, downwards to the fourth intercostal space in front, and to the middle of the scapula behind. At the latter point the breathing was amphoric in character. The level of the fluid was considerably lower down; succussion sound could be obtained distinctly. Dr. Lange saw the patient again in consultation, on the 23d of October, and from the history of the case felt certain that there was pus in the pleural cavity, but aspiration gave a negative result. Puncture was made at four different places, but only a few drops of blood mixed with air were obtained. Assuming that the collection of pus might be near the centre of the lung, deep punctures were made. Dr. Lange had already determined to desist from further surgical interference, when he discovered at the lowest part of the thorax, toward the lumbar region and against the lateral border of the sacro-lumbalis, air under his fingers on pressure upon the deep tissues. He punctured at that point, found pus, and then opened the cavity by a free incision. There was an abscess below the diaphragm, along the under surface of which the finger could be passed after being introduced through the incision. Apparently the empyema had perforated the diaphragm. The expectoration very soon ceased, and the patient made a rapid recovery. With the exception of slight retraction of the lower and front part of the right side of the chest, with diminished respiratory murmur in that region, there was scarcely any difference to be noticed when the two sides were compared. Dr. Lange thought that the point at which perforation of the diaphragm occurred was possibly at the gap between the vertebral and costal part of that muscle, which is sometimes very large. He was unable to make out whether the abscess was intra- or extra-peritoneal, but thought it was probably the latter. The kidney, on account of swelling and infiltration of tissues around it, could not be felt distinctly. The outline of the liver was recognizable by palpation. Last summer, Dr. Lange was shown, at Professor Thiersch's clinic in Leipzig, a patient who had sought admission because of a freely discharging fistula over the anterior aspect of the right femur. The etiology of the abscess became apparent when purulent expectoration began simultaneously with the cessation of discharge of pus from the fistula. The patient stated that this had occurred several times, and examination of the chest upon the right side gave evidence of an encapsulated empyema, for which thoracentesis with resection of a rib was performed. Recovery followed rapidly. Dr. Lange was inclined to believe, although unable to prove it, that there was a causal relation between the abscess in the biceps and the empyema, the latter being the result of an embolic process. In reply to a question, he stated that the largest collection of pus was above the diaphragm, probably a pint being in the cavity below it.

The PRESIDENT remarked that, in a similar case, he found the accumulation of pus much larger below than above the diaphragm, pressing into and upon the abdominal cavity.

DR. POST asked which occurs most frequently, abscess originating in the thoracic cavity with perforation downwards, or abscess beginning in or near the liver with perforation upwards?

DR. BRIDDON replied that he thought perforation upwards occurred most frequently. In a similar case admitted to the Presbyterian Hospital, probably a year ago, the cavity of the chest had been aspirated and a large quantity of pus removed. There was dulness on percussion up to the spine of the scapula, behind and to a line nearly upon the same level in the

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axillary region, and there was a large area of dulness in front. There was also a marked bulging in the neighborhood of the liver, which was mapped out quite accurately by the area occupied by an enlarged liver. Fluctuation was detected by palpation over this large swelling, and the sensation could be distinctly felt carried through to the lumbar region. Dr. McBride, one of the visiting physicians, examined the patient, and regarded it as a case of perinephritic abscess, which had pressed the diaphragm upwards, developing a condition simulating empyema. Dr. Briddon attempted to aspirate from behind, and passed the needle three or four inches deep without obtaining anything. He then aspirated in front and removed a large quantity of bloody serum. There was no appearance of pus to the naked eye in the fluid, but the microscope revealed a certain number of pus corpuscles. He aspirated several times subsequently, and obtained the same kind of fluid, but never at any time fluid which had the usual appearance of pus. The patient subsequently came under Dr. L. A. Stimson's care, who made an incision behind into the cavity of the chest, and gave exit to a large quantity of pus. The patient subsequently expectorated large quantities of pus, and it was noticed that when the expectoration was obstructed or deficient in quantity, that the subdiaphragmatic swelling would increase in size. At the time he had some doubt as to whether the abscess was sub-diaphragmatic or not.

DR. YALE added an item in the clinical history which filled up an interspace between the service of Dr. Briddon and that of Dr. Stimson. He saw the patient soon after Dr. Briddon first saw him. The man came into the hospital one afternoon greatly oppressed in breathing, and Dr. Yale aspirated his thorax, and drew away a little more than ten pints of pus. This was followed by the operation already alluded to, and performed by Dr. Stimson. As he recollected, Dr. Stimson was not quite sure where the cavity was even after the operation had been performed. Dr. Yale thought, however, that the opinion of the majority of the visiting surgeons was that the case was one of perinephritic abscess which had worked its way upwards.

DR. LANGE then read a paper entitled

ANATOMICAL AND CLINICAL CONSIDERATIONS CONCERNING THE RETRO-PERITONEAL SPACE IN THE REGION OF THE LAST RIB.

DR. HALSTED asked Dr. Lange if he believed that the lower limit of the pleural cavity was lower than that which had been given by Dr. Hull.

DR. LANGE replied that in some cases it was much lower, and in other cases it was higher. On the average, however, he should say that it was lower.

DR. WEIR remarked that it was not often he had the opportunity of testing upon the living subject the accuracy of the remarks made by Dr. Lange. Recently, however, he had had the opportunity of cutting down upon the tissues in that region which were tolerably normal. The operation was one for making fast or anchoring a movable kidney. In that instance he found that the kidney fat, in a patient only moderately stout, was, on being incised, or torn through, capable of being readily separated, and in that manner enabling him to expose the kidney, and by traction on the investing tissue to raise the organ towards the surface quite satisfactorily. However, even in this case of movable kidney, there was considerable difficulty in reaching and appreciating the pelvis of the organ. He put his finger in for the purpose of education, because one or two years ago he had placed upon record the view that in those cases in which there has been for years previous signs of obstruction of one ureter, and then signs of obstruction in the other ureter developed, one might proceed to a lumbar incision, and by opening the pelvis of the kidney or ureter, above the site of obstruction, with a view to saving the patient's life; an operation which had recently, he said, been performed by Bardenheur with success.

DR. LANGE remarked that the position of the kidney could be changed considerably in a lateral direction. He had also found that if the lower part of the kidney was pulled upwards and laterally, the entire organ would be pulled not only laterally, but at the same time its lower edge would be upwards and made to perform a sort of torsion.

DR. BRIDDON asked Dr. Lange what incision he would make in nephrectomy.

DR. LANGE replied that he would make an incision extending from the apex of the last rib, if that could be felt; in other words, make Czerny's incision. If the rib could not be felt, he would take the line of the sacro-lumbalis, or the quadratus lumborum muscle. In reply to a question by Dr. Halstead, he remarked that counting from the spines could hardly be depended upon as giving proper directions for making the incision.

VESICAL CALCULUS.

DR. H. B. SANDS presented five small vesical calculi, the largest being one-half of an inch and the smallest about one-third of an inch in diameter, which he had removed thirteen days previously by lateral lithotomy. The interest of the case consisted in the fact that this operation had to be performed in the place of the crushing operation, which would have naturally been selected for the removal of stones of this size. The patient was a man fifty-seven years of age, who had suffered from symptoms of stone for three years. He was seen by Dr. Van Buren between two and three years ago, when it was discovered that his prostate gland was unusually large. On that occasion a sound was introduced into the bladder, but a stone was not detected. Some doubt seemed to have been felt by Dr. Van Buren as to whether or not a stone was present, for he told the patient that he wished him to return for another examination. Considerable irritation following this exploration, the patient did not return to have it repeated. He continued to suffer more or less from cystitis and irritable bladder, and about two months previous to the time when Dr. Sands first saw him, his symptoms became very severe. The patient suffered from spasmodic contraction of the bladder accompanied with great pain. Owing to prostatic hypertrophy, he had for nearly three months been unable to evacuate the bladder except by means of a catheter, which, however, was readily introduced. Previous to Dr. Sands' visit, the patient had been seen by Dr. Doughty, who had sounded him upon three occasions. At the first examination a calculus was detected, but it was observed that the sound, a Thompson's searcher, could not be moved as freely as usual in the bladder. The second and third examinations failed to detect any stone. When Dr. Sands visited the patient he administered ether, and made a careful exploration of the bladder and rectum. An instrument with a large curve passed readily into the bladder, but one having the curve of Thompson's sound, could not be made to enter. This fact had been previously noticed by Dr. Doughty. The prostate when examined by the rectum, was found to be exceedingly large. The urethra was measured, and was ascertained to be nine and a half or ten inches in length. When the Thompson's searcher was introduced it would pass the entire length of the instrument, which was nine and a half inches, and still its point did not enter the bladder.

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The instrument seemed to be arrested by some bar of prostatic tissue. Introducing the instrument as far as it would go, Dr. Sands endeavored to move it, but the point remained nearly stationary, apparently grating against a rough surface of prostatic tissue. A stone was detected situated upon the patient's left side, and apparently just at the neck.

DR. SANDS decided to perform lateral lithotomy, and thirteen days ago he removed the five calculi presented; four were whole, and the fifth one was in fragments. Each calculus consisted of a uric acid nucleus, covered with concentric layers of phosphates. The patient, a few hours after the operation, had a chill and began to suffer from retention of urine. Dr. J. C. Hutchison, who had assisted at the operation, was called and succeeded in introducing an instrument into the bladder through the penis. Using this as a guide, he introduced a Nélaton's catheter through the perineal wound into the bladder and tied it in position. This gave the patient complete relief, and through the instrument remaining in the wound the urine was allowed to trickle for eleven days. About two days after the catheter was introduced it was noticed that the point of the instrument tended to escape from the bladder into the deeper part of the urethra; believing that it would be better to let the instrument lie there in the wound than in the bladder, thus preventing the liability to incrustation, it was allowed to do so, and every two or three hours it was introduced far enough to allow the urine to escape. Two days ago the catheter was removed from the wound, and has since been introduced through the penis, whenever necessary.

DR. SANDS regarded the case as interesting in two respects. In the first place, it afforded an illustration of the fact that even when the stone was small all cases of vesical calculi could not be treated by the crushing operation. A similar case came under his observation about six weeks ago, in which he was obliged to perform lithotomy and remove a stone, not larger than an almond, because he failed after repeated attempts to seize the calculus with the lithotrite. In this case there was no difficulty in inserting the instrument into the bladder, but it could not be made to seize the stone, which lay in a pouch behind the prostate. This cavity, which was apparently bounded behind by a muscular band extending between the orifices of the ureters formed a cavity which was not more than one inch in its longest diameter, large enough to contain a stone, but not large enough to allow the blades of the lithotrite to open and seize it.

The second point of interest was the occurrence of retention after the operation of lateral lithotomy, in which a pretty free incision was made. This was the second case in which this rare complication had followed lateral lithotomy in his practice. Usually the urine flows freely from the wound, and catheterism is not necessary. In the other case, as in this, the prostate gland was considerably enlarged, and he inferred from his experience that when lateral lithotomy is performed in such circumstances, especially where the bladder is weak, the proper course would be, after extraction of the stone, to wash out the bladder, insert a flexible catheter and allow it to remain in position. In addition, he believed it to be advisable to allow the point of the instrument to recede from within the bladder and subsequently to push it forward at regular intervals to permit the escape of the urine.

DR. POST referred to a case in which he assisted the late Dr. Buck in the performance of lateral lithotomy, and retention followed the operation. On introducing the catheter the next day, a large quantity of urine was drawn off. In that instance a fatal result occurred. There had not been retention during the operation.

DR. WEIR referred to a case in which Dr. Buck operated, and in which retention followed the operation, but in that instance another calculus was found in the bladder.

DR. POST remarked that Mr. Liston, of Edinburgh, once remarked to him that he was in the habit of introducing a catheter, and allowing it to remain after performing lithotomy, because he believed that the safety of the patient was promoted by it.

PTOSIS WITHOUT STRABISMUS, AND AMAUROSIS WITHOUT A DILATED OR SENSITIVE PUPIL.

DR. POST narrated a case as follows: A boy, fifteen years of age, was brought to his clinic last Saturday, who had been in the enjoyment of fair health, except that he had suffered from headache during the last two years to a considerable extent. About five days before he was brought to Dr. Post, the patient was suddenly attacked with ptosis of one eye, and there was almost absolute loss of vision attending it. There was bare perception of light. There was no strabismus, and the pupils of the two eyes corresponded with each other, and both were sensitive to light. The occurrence of ptosis without strabismus, and amaurosis without dilatation or sensitiveness of the pupil, seemed to him to be unusual.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 21, 1882.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D., IN THE CHAIR.

AFTER the report of the Secretary, the CORRESPONDING SECRETARY reported the death of Sir James Alderson, who died at an advanced age in London, in December of the present year; also that of Sir Thomas Watson, Fellow of the Royal College of Surgeons, who died in London, December 11, 1882. He was best known to the American profession through his lectures on the practice of medicine.

The STATISTICAL SECRETARY reported the death of Michael Hagan, a Fellow of the Academy, who died at the age of sixty-seven, on the 8th of December,

The SECRETARY read a letter from the Secretary of the Northwestern Medical and Surgical Society of New York, enclosing a check for one hundred dollars as a gift to the Journal Department of the Academy. Upon motion of Dr. White, the Academy extended to the above Society a vote of thanks for its kind and generous donation.

The next business was the presentation of a marble

BUST OF THE LATE PROF. JAMES P. WHITE, OF BUFFALO,

by Dr. Austin Flint, Sr. This was the gift of the late Prof White's son, Mr. James P. White. The sculptor was Mr. J. G. Mitchell, of Rochester.

DR. FLINT moved that the Academy extend a vote of thanks to James P. White for his generosity in presenting to it a marble bust of his father.

THE PRESIDENT called upon Dr. Thomas to second the motion, who responded in a few graceful and well-timed remarks, saying that he thought it eminently proper that the bust of our late honored Fellow should have a place in the hall of the Academy opposite that of the greatest of living ovariotomists, Mr. Spencer Wells, of London.

The motion was unanimously carried.

The next business was the scientific work of the evening.

DR. T. GAILLARD THOMAS presented

A CONTRIBUTION TO THE SUBJECT OF THE REMOVAL OF THE UTERINE APPENDAGES (TAIT'S OPERATION) FOR PROLONGED MENSTRUAL TROUBLES WITH RECURRENT PELVIC INFLAMMATIONS, WITH SPECIMENS.

In the issue of the *British Medical Journal* for July 29, 1882, appeared a remarkable essay by Mr. Law-

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son Tait, of Birmingham, England, enunciating views entirely at variance with those heretofore held by the medical profession, advocating pathological tenets which were altogether new, and recommending a plan of treatment which is at once original and bold. This article was entitled, "Remarks on the Diagnosis and Treatment of Chronic Inflammation of the Ovary."

Dr. Thomas referred to the article at some length, first, because his own paper was based upon its suggestions; second, because he felt sure that the positions which it assumed would interest the Fellows of the Academy, even if they denied their validity; and third, because he himself was convinced that this bold and original surgeon had advanced views which were destined to open a new field for gynecological surgery in the future, and to exert upon this department of medicine an enduring influence.

While the speaker did not feel warranted from his own experience and observations in accepting all the conclusions of Mr. Tait, he believed that there was a sufficient amount of truth in some of them to make the essay above referred to one of the most valuable that this decade had produced for the gynecologist.

Since that period, which constituted so remarkable an era in the history of gynecology, when Henry Bennet, Simpson, and Marion Sims brought their eminent labors to bear upon this department of medicine, until the present time, a vast deal of attention had been directed to the uterus, vagina, the uterine ligaments, and the pelvic peritoneum, and the areolar tissue, while the diseases of the ovaries and Fallopian tubes have been left enveloped in a cloud of ignorance and uncertainty which few have endeavored to penetrate and dispel. Tilt, of London, the firm, persistent, and able advocate of the claims of ovarian pathology, has, during this time, stood almost alone, steadily and consistently enunciating views with which few sympathize and still fewer endeavor to sustain. At the present time, however, it seemed that a wholesome revolution was occurring in this respect; that reflective men, devoted to gynecology, were now recognizing the fact that a very large proportion of cases of menstrual disorder, pelvic neuralgia, and difficult locomotion, which were formerly attributed to the uterus, its ligaments, or the pelvic areolar tissue, are entirely due to ovarian disease, and that hundreds of cases in which this devoted organ was cut, cauterized, and leeched, had the same pathological origin.

Mr. Tait assumed: *First*, that the view formerly held that laparotomy operations should be postponed until absolute risk to the life of the patient rendered them necessary, should now be abandoned; and that in the hands of an expert they are at present so free from danger as to be practicable even when life is not jeopardized. *Second*, that the usually accepted doctrine of the dependence of menstruation upon the ovarium is wholly erroneous. *Third*, that the ovaries have nothing whatever to do with menstruation, and that this phenomenon is dependent upon the Fallopian tubes. *Fourth*, that the many cases of abnormal menstruation are justifiably treated, and are relievable in no other way than by extirpation of the ovaries and tubes. *Fifth*, that in chronic ovarian disease the tubes are invariably involved, and that in most cases it is the tubes which are chiefly at fault. *Sixth*, that the mortality in his last thirty-five operations having been only one, even this slight loss of life is susceptible of diminution in the future. *Seventh*, that many of those cases heretofore regarded as instances of menstrual or recurrent pelvic peritonitis or cellulitis are really due to tubal dropsy and ovarian disease; an occasional discharge of the purulent accumulation of the former giving rise to slight and passing attacks of these affections.

Dr. Thomas stated that the removal of the uterine appendages, as it concerned his remarks, had nothing whatever to do with the subject of ovariotomy. The latter operation was resorted to for the removal of large and increasing tumors, which, if not removed, almost invariably destroy life within a few years. The former was performed for severe menstrual disorders and nervous troubles having their origin in the uterine annexæ, which, while they do not jeopardize life, render it utterly miserable and intolerable.

Dr. Thomas's contribution was merely a report of four cases in which very grave menstrual trouble accompanied by all the symptoms of recurrent pelvic peritonitis and cellulitis were found due to tubal dropsy existing coincidentally with chronic ovaritis, exactly as Mr. Tait had described it.

Case I. was a colored woman, 30 years of age, who commenced to menstruate at fourteen; she had been married nine years, and was the mother of one child, eight years old. Her menstruation was perfectly normal up to the period of weaning her child, eighteen months after delivery. At that time she was taken with very sudden symptoms resembling those of cellulitis or peritonitis, accompanied with slight bloody discharges from the vagina. She was confined to bed for about a week, since which time she has been a confirmed invalid, her menstrual periods being painful, scanty, and irregular. Upon making an incision in the mesial line and passing two fingers into the iliac fossa, Dr. Thomas drew up an ovary about as large as an English walnut, distended by a multitude of small cysts, and the Fallopian tube resembling closely in size an ordinary sausage, and giving to the touch very much the feeling of a loop of intestine. Tube, ovary, and ovarian ligament were ligated with an aseptic banjo-string and removed; the same condition was found to exist on the other side, and the same procedure was adopted. The operation was performed under the strictest antiseptic precautions, except that the spray was not used during the operation. On the thirteenth day after the operation the patient was sitting up in bed, having recovered completely, without a bad symptom. The time of one menstrual period had passed, and as yet no sanguineous discharge had occurred.

Case II. was a lady 25 years of age, who had been married three years, and was the mother of one child, eighteen months old. Her menstrual periods began at the age of seventeen, and before her marriage gave her no trouble whatever. Nine months after confinement she was taken with an attack of pelvic inflammation, which seemed to have been unquestionably one of slight cellulitis or peritonitis. Since the birth of her child she had never been well, and suffered from constant pelvic pain, with occasional accessions of inflammation. She menstruated irregularly and painfully, and suffered from leucorrhœa and difficulty of locomotion. At the operation the ovaries were found very slightly diseased, but the tubes were distended by large accumulations of pus. Both ovaries and tubes were removed. The patient recovered without any remarkable rise of either pulse or temperature.

Case III. was that of an unmarried lady aged 22 years, who began to menstruate at fourteen, from which time she had suffered from most dreadful dysmenorrhœa until a year ago. Pain was confined to the menstrual period, and was agonizing for thirty-six or forty-eight hours. Both ovaries and tubes were removed. The ovaries were found filled with small cysts and the membrane lining the tubes inflamed and bathed with pus, which was, however, not confined within them so as to create dropsical enlargement. The patient recovered without unfavorable symptoms.

Case IV. was a maiden lady 27 years of age, who began to menstruate at fourteen. This was accom-

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panied with severe pain until two years ago. Her case would have been classed as one of those very common ones of exceedingly severe dysmenorrhœa. At this time she had a short attack of pelvic peritonitis, and had ever since been a most wretched invalid, having become greatly emaciated, suffering constantly, and being almost continually confined to bed.

An operation being decided upon, owing to her low vital condition, an attempt was made to get her into a more favorable condition for the operation. This, however, proved ineffectual after a fair trial, and it was decided to operate at once, which was done on the 11th of the present month. The ovaries were not very much diseased, but they contained a number of small cysts. The Fallopian tubes were dropsical, and throughout their whole extent firmly bound down by false membrane, which had to be torn with considerable force. The operation was tedious and difficult, and at its conclusion no one who witnessed it could avoid making an unfavorable prognosis as to the result. Twenty-four hours afterwards one of those insidious attacks of peritonitis, with low temperature and slight pain, which so often develop after laparotomy, declared itself, and on the sixth day destroyed the patient's life.

The ovaries and tubes that were removed from the first, second, and fourth cases were presented to the Academy, those of the third having accidentally been lost. The tubes were greatly enlarged and characteristic of the condition described by Tait.

Dr. Thomas called attention to the fact that the results from Mr. Tait's oöphorectomy operations had, like those of Keith, Wells, and several other European surgeons from ovariotomy, been exceedingly gratifying. In this country we could present no such glowing accounts of the results of these operations. It was true that surgeons might lull their misgivings to rest by listening to the kindly suggestions of a superior physique on the part of patients, a more advantageous climate, and the concentration of cases in the hands of experts on the other side of the Atlantic, but it was unlike the genius of our land to accept such placebos. He suggested, therefore, that we look the disagreeable truth boldly in the face, and recognize the fact that, so far at least, our European brethren in this field of surgery were for some unknown reason ahead of us. The discrepancy which existed between our statistics today could not be met by argument; it must be abolished by results.

THE PRESIDENT announced that the paper of Dr. Thomas would not be discussed independently.

The next paper was a

COMPARISON BETWEEN GASTRO-ELYTROTOMY (THOMAS'S OPERATION) AND OÖPHORO-HYSTERECTOMY (PORRO'S OPERATION),

by DR. HENRY J. GARRIGUES.

The paper consisted of a critical comparison, from the surgical standpoint, of the two operations the aim of the author evidently being to make a strong plea in favor of Thomas's operation. He considered that the latter had various advantages over the Porro or the Porro-Müller operation, and argued that it should, at least, be given a fair trial. By operating early, or refusing to operate upon dying subjects, there could be no doubt but that the danger of the operation would be shown to be much less than the present statistics would seem to indicate. Though the Porro operation had an advantage from the standpoint of antiseptic surgery, it was nevertheless possible to enforce antiseptic precautions to a considerable extent in Thomas's operation. One advantage of the Porro-Müller operation was that it could be commenced before the commencement of labor.

DR. POLK being called upon to open the discussion, remarked that there was very little to be said upon the operation beyond what was contained in the paper, except, perhaps, to place the operation, and to disabuse the minds of its opponents as to its difficulties. He thought, in placing the operation, it was a mistake to put it in competition with Cæsarean section and its modifications. There were cases in which the Cæsarean operation was the only one that could be performed. In certain cases, he thought, the operation of embryotomy might well give way to gastro-elytrotomy. The latter operation rested between Cæsarean section and its modifications on the one hand, and embryotomy on the other. The laceration incidental to embryotomy was infinitely more detrimental than that produced by gastro-elytrotomy. This remark referred only to cases where there was the minimum limit to the deformity. Dr. Polk went on, and described, step by step, in detail the anatomical points in the two operations, and thought the evidence thus adduced showed that Thomas's operation was the simpler of the two.

DR. TAYLOR spoke in favor of oöphoro-hysterectomy, and was followed by DR. SKENE, of Brooklyn, who argued in favor of Thomas's operation.

DR. LUSK thought that when there was a dilated cervix, no operation was better than gastro-elytrotomy. It was also the only operation to be thought of in cases where there was a contracted pelvis over the head. He was not prepared, however, to say that gastro-elytrotomy would supersede all other operations.

Further remarks were made by DRS. GILLETTE and EMMET, and the discussion was closed by DR. GARRIGUES.

RHODE ISLAND MEDICAL SOCIETY.

Semi-annual Meeting held at Providence, December 21, 1882.

(Specially reported for THE MEDICAL NEWS.)

THE semi-annual meeting of the Rhode Island Medical Society was held in Providence, on December 21st, THE PRESIDENT, DR. JOB KENYON, in the chair. The attendance was large.

THE SECRETARY, DR. GEORGE D. HERSEY, read the records of the last quarterly meeting, which were approved.

DR. M. FIFIELD, of Centreville, presented a report of the following

CASE OF INTRA UTERINE TUMOR.

The patient is a woman 39 years of age, whose menstruation, beginning at 13 years of age, continued very profuse and frequent up to six years ago, the periods recurring every two or three weeks during the whole time. During the past six years there has been no menstruation, but very severe uterine hemorrhages have occurred at irregular intervals. One of these took place last July and was with great difficulty checked by the use of ergot and viburnum.

An examination at that time showed the abdomen to be greatly enlarged, the tumefaction extending above the umbilicus, its upper left side being distinctly rounded and hard on palpation. On examination per vaginam the cervix uteri was found shortened and softer than normal, with the os so patulous as to readily admit the tip of the finger which immediately encountered a firm, hard mass completely filling the uterine cavity. Since July there had been no recurrence of the hemorrhage until last week, when there was a profuse and alarming loss of blood. Walking is painful to the patient, but she can ride in an easy carriage in comfort.

The question is asked, Is the intra-uterine mass a fi-

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broid tumor, and if so, what treatment is indicated? Is Battey's operation justifiable in the case?

DR. LUCY R. WEAVER said, regarding a case operated on by Dr. A. E. Tyng, and reported two years ago that a fibroid existed in that case, and Battey's operation was done; that almost immediately the tumor began to diminish in size and could now scarcely be felt at all and that the woman regarded herself as being now in perfect health.

DR. J. H. MORGAN, of Westerly, read the report of a case of

ANEURISM OF THE DESCENDING AORTA,

occurring in a Scotch stone-cutter, 38 years old, who was first seen by the writer April 19, 1882, soon after coming from Vancouver Island. Formerly in vigorous health, he had then become weak and emaciated. For fifteen months he had suffered from neuralgic pains in the right thigh and leg. A well-marked prominence existed in the lower dorsal portion of the spinal region, in which severe pain was caused by allowing his weight to come down forcibly on his heels. Percussion and auscultation gave only negative results. Caries of the vertebræ being diagnosticated, it was proposed to put on a plaster-of-Paris jacket, but to this measure the patient himself objected. The case went on without marked change until May 18th, when, after a day of less suffering than usual, death occurred suddenly. The autopsy showed the diaphragm to be prolapsed, the liver pushed downward and to the left, the stomach contracted, the spleen and pancreas normal, the heart crowded to the left, and the right lung compressed and adherent. On the right side of the spinal column and behind the kidney was found a ruptured aneurismal sac, communicating by a small orifice with the descending aorta. The sac had ruptured into the right pleural cavity. The writer emphasized the need of caution in the application of the plaster jacket, in face of the possibility that, as in this case, the spinal disease may have been caused by the pressure of an undiscovered aneurism.

DR. F. B. FULLER exhibited a specimen of

ENCEPHALOID OF THE TESTICLE.

At 12 years of age the man had received a blow in the scrotal region which immediately caused acute orchitis. This subsided, but the right testicle soon began to enlarge, and became painful. The condition changed but little for several years when the trouble increased rapidly for four months until the growth became so burdensome and painful that it was excised February 10, 1882. The tumor, which was the specimen shown, was the size of a fœtal head at term; its upper two-thirds were fibrous and contained cysts and enchondromatous masses; the lower third was encephaloid carcinoma. The patient recovered well from the operation, but very soon began to have severe pain in the abdomen which was from time to time relieved by the escape per rectum of large quantities of clots, blood, and pus. Death occurred in ten months, and post mortem there was found in the abdominal cavity a mass of encephaloid cancer the size of a man's head.

DR. W. H. PALMER, of Providence, read a paper on

CORONERS AND THEIR DUTIES.

The ancient origin of the system of investigation through the office of coroner was alluded to as dating back as early as the year 908 in England, in which country the officer, variously termed "coroner," "crowner," and "coronator"—either title signifying a direct representative of the crown—enjoyed uncommon authority and privileges, which the writer described. The establishment of the coroner system was said to be one of the earliest concessions made by the crown to the people—the coroner having first summoned a jury from the ranks of the common people.

In those early days the appointment of coroners was naturally hedged with due precaution, and it was directed that none but loyal and discreet knights should fill the position. In 1640 there was published in England a long and explicit summary of the coroner's duties.

Our advancing civilization is unable to dispense with the coroner system or its equivalent, notwithstanding, from time to time, public disapproval demands the abolition of the coroner entirely.

The coroner's office, organized to make inquiry into the cause of death, is one of special interest to the medical profession.

The different methods employed in some of the countries of continental Europe, where the office of coroner does not exist, were described.

Although the method of appointing coroners differs in the various States in this country, there is agreement in one direction, viz., coroners are almost universally appointed without special qualifications for the position.

It would be as rational to hand a stopped watch to a lawyer for him to investigate the cause of the trouble as to expect a non-medical coroner to properly and intelligently seek for the cause of the stopping of a human life, a machine so manifold more intricate and delicate. Now, in England, the office is filled almost entirely by medical men.

The writer claimed that in Rhode Island the authority and work of the coroner are neither merely supplementary nor inefficient, as has been alleged in the public press. He alone has authority to take charge of dead bodies in suspicious cases, to order exhumations, examinations, and analyses; to enter houses to investigate, to summon juries and witnesses, impose fines, etc.

The system at present employed in Massachusetts, whereby the office of coroner is supplanted by that of medical examiner, was reviewed in detail, and the following mentioned as among the most important features of that system:

1. The best element is that only medical men are appointed.

2. An inquest is held without the intervention of a jury, the opinion of *one* man prevailing instead of *six*.

3. At the option of the trial justice, the inquest *may* be held in private.

In the opinion of the writer, however, it did not seem probable that the Massachusetts system would take the place of the coroner.

The coroner system, *at its best*, is *the best*, and the defects charged against it are not *inherent* in the system, but arise from the carrying out of the application of the system.

DR. A. BALLOU thought the medical profession were not alive to the importance of having suitable men appointed coroners. He expressed his approval of the paper just read, and also his belief that the legislation in Rhode Island bearing on the subject is not inferior to that of other States. The system employed in Pennsylvania is very expensive, and, as managed, is far inferior to our own.

DR. CASWELL expressed his interest in and approval of the paper. He had thought, however, that the Massachusetts system was excellent and entirely successful.

DR. O'LEARY asked Dr. Palmer if it was within the province of a Rhode Island coroner to inquire beyond the *proximate* cause of death, *e. g.*, in case of drowning on board ship, shall the coroner investigate as to the seaworthiness of the ship, etc.

DR. PALMER replied that the jury should not be re-

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stricted, and might seek for remote and contributory causes of death.

THE CENSORS' REPORT

was next in order, and was presented by Dr. S. S. Keene for the Board. It simply recommended that the applications for fellowship of Dr. Jean Antoine Baptiste Tanguay and Dr. George Reuben Smith, which were received at the last quarterly meeting, be referred to the next meeting. This report was accepted.

DR. ROBERT F. NOYES, of Providence, then read a paper on

PERITYPHLITIS AND PERITYPHLITIC ABSCESS.

The cæcum, covered in front and laterally by peritoneum, and posteriorly by cellular tissue, has functions that are peculiar and distinct. Its contents pass slowly and in a direction opposed to gravitation; hence the liability of the lodgement of fruit seeds and stones, bits of epithelial and fibrous tissue from the ingesta, etc. It may become enormously distended—even to the capacity of a gallon, and its walls greatly hypertrophied. The symptoms of inflammation of the cæcum and its appendages are pain in the right iliac fossa, vomiting, pain and numbness in the thigh, frequent and painful micturition, and the presence of regional swelling.

Regarding the appendix vermiformis cæci, it was said that it exists in the ourang and ape alone of the lower animals; that its non-uniformity anatomically, and in its investments, complicates the diagnosis; its orifice sometimes becomes occluded, causing atrophy; calculi may form in it; ulceration in the appendix is less apt to be followed by cicatrization than in case of ulceration of the cæcum, but perforation is more common in the appendix. Perforation may occur without the previous existence of symptoms severe enough to attract the attention of the patient.

The softening of the cæcum renders caution necessary in the use of copious injections, especially when the rectal tube is introduced. In the great majority of cases perforation of the vermiform appendix is caused by foreign bodies. Reference was made to Dr. Bartholow's description of cases of idiopathic perforation of the appendix.

Regarding the symptoms in perityphlitis, the dull pain is due to cellulitis, the sharp pain to peritonitis, the pain and numbness of the thigh to pressure on the lumbar plexus; the vomiting is due to obstruction of the intestine. The tumefaction is at first hard, and afterwards becomes softer. To diagnosticate perityphlitic abscess may be very difficult, but it is very important. Examine for swelling, pain, and fluctuation, and employ the aspirator needle in doubtful cases. In diagnosis the following must be considered in differentiating: Tumors due to fecal accumulation; psoas abscess; malignant disease; inflammation of right ovary; perinephritic abscess; movable kidney, with suppuration; abscess of the abdominal wall; in children hip-joint disease; and invagination, especially if at the ileo-cæcal region, when it may be very difficult to determine the diagnosis.

The prognosis in perityphlitis depends largely upon the etiology. It is more favorable when the cause is exposure to cold or traumatism. In case of abscess, the course taken by the pus largely influences the result. If it escapes into the intestine or bladder, it is more favorable than through the abdominal wall or upward through the diaphragm.

The writer had collected notes on 100 cases, of which 15 were fatal. Perforation of the appendix is almost always fatal, though a few cases have recovered.

In the treatment of perityphlitis, saline laxatives should be used, with enough opium to relieve pain and control peristalsis; turpentine fomentations; leeches may be applied to the ileo-cæcal region. There should be frequent examinations for abscess, and when found it should be opened by an incision parallel to Poupart's ligament. When pus is suspected, but fluctuation is not present, the exploring needle may be used. The needle is valuable in diagnosis, but can not supersede the knife. Out of 100 cases of abscess 31 were due to presence of foreign bodies, and in this class of cases the knife is far better than the needle. When an incision is made it should be carried down to the fascia transversalis, when deep-lying pus is suspected. Several authorities were quoted as to the proper time for opening the abscess. The sac of the abscess on percussion may give a tympanitic sound as though the intestine lay in front, but the writer had never found this condition present. The treatment in case of perforation of the appendix vermiformis should include opium, fomentations, and perhaps the application of the ice-bag in the iliac region.

DR. A. BALLOU cited three fatal cases in point:

1. The case was seen during the acute inflammatory stage. Opium and fomentations were used. A portion of the cæcum became gangrenous and was thrown off per rectum. The specimen was preserved.

2. The case of a woman of 200 pounds weight and seven months pregnant. There was no movement from the bowels and death occurred from inflammation. There was no tendency to abortion. The autopsy showed that two inches of the ileum had become invaginated by the cæcum, strangulated and gangrenous.

3. This case was similar to the second, the ileum being invaginated within the cæcum and gangrenous.

DR. WM. SHAW BOWEN, of Providence, then read a paper on a case of

ULCERATION OF THE LARYNX.

The patient, Mr. H., is 39 years old, of spare build, regular habits, and in comfortable circumstances. Six years ago he fell down stairs, striking his face on an open door, causing fracture of the nasal bones, and displacement of the vomer. A few months later a hard pimple appeared near the right ala nasi. It broke down and refused to heal. The disease extended up the nostril on the mucous membrane, destroying a portion of the vomer and middle turbinated bone. There was but slight involvement of the skin outside the nostril. A course of hot-iron treatment, in Boston, was followed by an apparent cure.

In December, 1881, he began to have slight soreness of the throat, cough, and hoarseness; swallowing was painful, especially of condiments; soon no solid food could be swallowed. A physician pronounced it to be laryngeal phthisis, and tried the usual remedies, with no avail. When first seen by Dr. Bowen the ulcerative disease had so far advanced that there had been extensive destruction of bone; œdema and cicatricial bands had left only a small orifice between the pharynx and the post-nasal space, so small as only to admit a fine bougie. There was a mass of mucous polypi in the nose, attached to the middle turbinated bone. The left tonsil was enlarged. The epiglottis was bare, somewhat rigid, and sensitive to the touch. There were a few nodular masses on its dorsum. It was very difficult to obtain a view of the vocal chords. There was harassing cough, and the voice was gone. Except in carcinoma or throat phthisis, a worse condition of the throat is rarely seen.

No syphilitic history was acknowledged, but it was decided to try the mixed anti-syphilitic treatment. Mercury, iodide of potassium, cod-liver oil, and sea-water baths were employed. Morphia and powdered starch were dusted over the raw surfaces, together with

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the application of olive oil. This treatment was continued three weeks without marked change in the local condition. The diagnosis of laryngeal lupus was then made. The arytenoideus was involved in the ulceration, some of the small nodular masses existing on its surface.

The treatment was now changed. A solution of nitrate of silver (480 grains to the ounce) was carefully brushed over the ulcerated surface. The first two applications caused severe laryngeal spasm, and no marked improvement followed the first twenty applications. The voice then became a hoarse whisper, and the cough was much less troublesome. The treatment was continued six weeks, resulting in marked improvement in all the local conditions. The tincture of the chloride of iron and iodoform were also used locally. In November, the voice had improved to a hoarse tone, and the dysphagia was gone. The silver and iodoform treatment was then stopped, and a stimulating inhalation of benzoin used instead.

DR. DANIEL O. KING, of Pontiac, reported

A CASE OF PERITYPHLITIC ABSCESS,

which recently occurred in his practice, in a boy 4½ years old. The first symptoms were pain in the right iliac region, tympanitis, and vomiting. An injection relieved the symptoms, which returned the next day, however. Laudanum and chloric ether were given internally. The case went on for a week, when the writer was discharged. He was recalled to the case ten days later, and found the patient in a most critical condition, apparently very near death. A soft boggy swelling the size of an egg was now found in the right iliac space. The swelling was tympanitic on percussion and gave no distinct fluctuation. The patient was etherized, and by means of a hypodermic syringe a few drops of pus, having a fecal odor, were withdrawn. An incision, two inches long, was then made parallel to Poupart's ligament and carried down to the fascia transversalis. The fascia was punctured by the needle, letting out a fluid which the microscope showed to be purulent. A warm carbolized dressing was applied. The patient improved. Fecal matter oozed through the incision for some days, and some fragments of apple pie, eaten by the boy contrary to directions, also oozed out. The boy is now strong and well.

In this case the writer thought the abscess was caused by perforation of the vermiform appendix, for if the abscess had been primary it would have pointed into the intestine at once.

THE APPOINTMENTS OF DELEGATES

to the annual meetings of other State Societies were then named by the Chair, as follows:

Connecticut.—Drs. O'Leary and Browning.
New York.—Drs. Ely and W. O. Brown.
Vermont.—Drs. Robbins and O. C. Wiggin.
New Hampshire.—Drs. A. Ballou and W. R. White.
Massachusetts.—Drs. Miller and Swarts.
New Jersey.—Drs. Parks and Bullock.
Maine.—Drs. Anthony and Bowen.

DR. CASWELL reported two more

LITHOLAPAXIES.

The first was a secondary operation on a patient in whose bladder a few fragments remained after the first operation. The secondary operation was done in October last, occupied forty minutes, and resulted in the washing out of ninety grains of stone.

Case second, that of a man forty-seven years old, who was operated on, in 1876, by the old lithotrity method, eleven sessions having been required to free the bladder from fragments. He began to suffer again last spring. At the recent operation Dr. Caswell, believing the stone to be small, made a preliminary washing before introducing the lithotrite at all. A small stone was at once drawn into the eye of the instrument by suction, and was removed while so engaged without difficulty. The stone was round, $\frac{7}{16}$ of an inch in diameter, flattened into a disk shape, and perfectly whole and symmetrical. It was formed of urates and weighed 10 grains. Further examination revealed the presence of a second stone in the bladder, which was crushed and washed out at once, making 31 grains in all removed. The entire operation lasted half an hour. The patient was up and about his room the next day, and attending to business in a week.

Dr. Caswell emphasized the great advantages and superiority of litholapaxy over all other stone operations, and compared it with the far more dangerous lithotomy, especially in such a case as he had just reported.

He then exhibited Dr. Bigelow's modified evacuating apparatus, and explained its application.

DR. W. E. ANTHONY, of Providence, read

AN OBITUARY NOTICE OF DR. GEO. CAPRON,

who died September 21, 1882. It was mentioned that in a practice covering sixty years, Dr. Capron had attended more than ten thousand confinement cases, a branch of practice in which he excelled.

PRESIDENT KENYON announced the death on November 28th, of Dr. George E. Mason, of Providence, a Fellow of the Society, and appointed Dr. J. W. Mitchell to present an obituary at the next meeting.

DR. E. M. SNOW said there had been 109 deaths from typhoid fever, in Providence, since September 1st.

Adjourned.

OBITUARY.

GEORGE FOX, M.D.

DR. GEORGE FOX died in this city on Wednesday, the twenty-seventh day of December, in the seventy-seventh year of his age. Although Dr. Fox relinquished his private practice and his professional appointments almost thirty years ago—*grande mortalis ævi spatium*—his death will still be felt in the medical community of which he was a well-known and distinguished *confrère*.

Dr. Fox belonged to a family in the Society of Friends, of high social position and extended influence, in the city of Philadelphia. He was graduated from the University of Pennsylvania, Bachelor of Arts, in 1825, dividing the second honor in his class with the late Adolphe E. Borie. The same year he began the study of medicine under his brother, Dr. Samuel M. Fox and Dr. Joseph Parrish, and received the degree of Doctor of Medicine from the University, in the spring of 1828.

During the two following years he was resident physician in the Pennsylvania Hospital; Dr. James A. Washington being his colleague the first year, and Dr. Ralph Hamersly the second. During his term of service as resident he devised the apparatus for fractured clavicle, still known as the *Fox apparatus*, and of which Sargent well says in his *Minor Surgery*, "No one who has employed it will be disposed to use any other as a substitute." In 1848, Dr. Fox was elected one of the visiting surgeons to the Hospital, and fulfilled all the duties of that position with the greatest fidelity so long as he remained in the city. On the organization of the Wills Hospital for the indigent blind, and lame, Dr. Fox with Drs. Hays, Littell, and Isaac Parrish, were elected surgeons, and he diligently served that institution until his election to the Pennsylvania Hospital, when he resigned his position at the

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Wills. After resigning from the Wills Hospital as surgeon, Dr. Fox was elected one of the Board of Managers, and acted as such until his removal to the country.

In 1831, Dr. Fox was elected a Fellow of the College of Physicians, and always showed great interest in its affairs. He was an active member of its Building Committee, and took a leading part in the selection and purchase of the site of the present hall of the College and in its erection. He possessed, it may be said, peculiar and special qualifications, which enabled him to be of great assistance to the College in these transactions.

At the time of the formation of the American Medical Association, and for several years afterwards, Dr. Fox was very prominent in advancing its interests and furthering its objects. He attended the meetings as one of the delegates from the College of Physicians.

In the practice of his profession Dr. Fox was eminently successful in *curing his patients;* or, if such phraseology be not acceptable, patients were very apt to get well under the means he used. As an instance of this, of all the cases in which he was forced to amputate a limb at the Pennsylvania Hospital, some twenty in number, only one died. He was distinguished for good judgment, and he was prompt, energetic, and not sparing of himself when his patients needed him. Moreover, to use a frank phrase, *il avait les opinions tranchus;* he was not habitually indifferent as to which course to pursue, but he was decided in believing one certain thing was the one thing to do, and that he did.

Dr. Fox was happily married on September 25, 1850, to Sarah D. Valentine, of Bellefonte, by whom he had six children, four sons and two daughters, all of whom survive him. One of his sons, Joseph M. Fox, has graduated in medicine, and been resident in the Pennsylvania Hospital; thus far following in his father's footsteps. *Dos magna, virtus parentum;* this is true in our profession as elsewhere.

NEWS ITEMS.

WASHINGTON.

(*From our Special Correspondent.*)

SPECIAL LEGISLATION TO CONTINUE THE IMMIGRANT INSPECTION SERVICE TO THE NATIONAL BOARD OF HEALTH.—At the semi-annual meeting of the National Board of Health held in Washington, D. C., December 12–14, the following communication was submitted:

WASHINGTON, D. C., December 12, 1882.

At a meeting of representatives of State and other boards of health, who have come here to place before the National Board of Health the importance of continuing the sanitary inspection of immigrants for the prevention of the introduction of contagious diseases into this country, and their spread throughout the country, W. M. Smith, M.D., Health Officer of the port of New York, was chosen chairman, and Dr. Henry B. Baker, Secretary of the Michigan State Board of Health, was chosen secretary.

The subject having been verbally presented to the National Board of Health, at its meeting this day, and the Board having requested a summary statement in writing of the views of those present, the subject was discussed at some length, and a communication to the National Board of Health was formulated as follows:

To the National Board of Health:

GENTLEMEN: The undersigned respectfully represent that the maintenance, at the principal ports of entry in the United States, of an efficient sanitary inspection of immigrants as to their protection from smallpox, and as to their liability to communicate that disease, is necessary to prevent the frequent introduction of smallpox and other contagious diseases among the people of this country; and that such inspection is necessary to secure efficient action at ports of departure and on board ships on the part of the transatlantic steamship lines engaged in the transportation of immigrants.

There is also urgent need for constant watchfulness to detect contagious disease occurring in immigrants after they have passed the ports of entry—the disease not having appeared when they were examined at the port of entry.

We therefore urge upon you the necessity for continuing such inspections as have been established.

This inspection service is such that its benefits have no relations to State boundaries, but its protective influences extend widely throughout this country, consequently expenses therefor should not properly be borne by any local or State board of health. We believe that it is the duty, and one of the highest duties, of the national government to maintain this inspection service whenever needed in this country.

In our opinion, the sum of $25,000 will be sufficient for this service during the remaining months of this fiscal year.

Wm. M. Smith, Health Officer, Port of New York. John H. Rauch, Secretary State Board of Health of Illinois. H. R. Mills, M.D., Henry B. Baker, M.D., Secretary Michigan State Board of Health.

This report and the recommendations were concurred in by a large number of representatives of State and city boards of health who were present.

This communication was transmitted by the Board to Congress, and was referred to the committee on Epidemic Diseases, and on the Public Health in the Senate and House of Representatives.

Senator Conger and Mr. Roch, of Michigan, have since introduced bills into the two Houses appropriating $25,000 to enable the National Board to continue the service during the remainder of the fiscal year.

NEW ORLEANS.

(*From our Special Correspondent.*)

PRESENT PREVALENCE OF MALARIA, AND ITS CLINICAL HISTORY.—The weather here has been exceptionally beautiful. Frosty nights have been followed by cloudless days and a bracing atmosphere. Notwithstanding this fact, the admissions to the Charity Hospital have been unusually large—averaging nearly fifty a day. Almost the whole of these new admissions are persons suffering from malarious affections. Although the first range of temperature arrests at once the further development of the malarial poison, there can be no question that it is liable to determine attacks in the persons of those previously exposed to its influence.

After more than two score years of study of the phenomena of this class of diseases, your correspondent can declare that the most remarkable feature that they present to his mind is the difference in symptoms which they present in some seasons as compared with other seasons. During the present year, diarrhœa and malarial coma have been the most common and dangerous symptoms. In some former years hæmaturia and congestive chills have been the principal sources of danger. This year he has not met with a case of either of these forms of pernicious fever.

Why should these differences obtain in the effects of a poison which is commonly looked upon as isomorphous?

There appears to be no way of explaining the fact, except by admitting differences in toxic qualities of

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different crops, or by claiming that the systems of those exposed undergo some unknown changes which determine the variations in the effects of the poison. The former appears to be the more rational theory.

The mortality rate from this class of diseases has not been great. The diarrhœas have in many instances been cured by cinchonism. Where this has failed, small doses of sulphate of soda and morphia have ordinarily accomplished a cure.

Quite a number of cases have been complicated by cardiac troubles. The most common of these has been dilatation caused by undue physical exertion in that state of innutrition and muscular atony caused by chronic malarial toxæmia. These cases recover with surprising certainty and rapidity as repair in the nutritive processes and restitution of degraded fluids are effected. Of course, rest from physical exertion is a *sine quâ non* to recovery.

Inflammations of cardiac structures have also complicated several malarial fever cases.

Your correspondent has now under observation a case of endocarditis associated with intense malarial cachexia, and a hypertrophied spleen, but with no history of rheumatism.

We are well satisfied that the malarial cachexia, like that of Bright's disease, invites inflammations of both mucous and serous structures.

We had one patient die of symptoms which he attributed to ante-mortem vascular clot. A previously strong man had two attacks of malarial fever during two months preceding the first observation. At this date he presented the appearance of alarming deterioration of the systemic fluids, but he was encouraged to hope for a reasonably prompt restitution. During a violent fit of vomiting he complained of sudden pain at the upper part of the sternum and in the præcordial region. At our next visit we found a very intermittent heart, with cool extremities and surface and anxious countenance. A peculiar systolic murmur was heard over the heart and quite as distinctly over the upper part of the sternum. Death ensued about forty-eight hours afterwards, but no autopsy was permitted.

BOSTON.

(*From our Special Correspondent.*)

DR. CARPENTER'S FIFTH LECTURE ON HUMAN AUTOMATISM.—The first subject discussed was the automatism of those perceptive processes, by which are determined the distance, direction, and notably the solid form of external objects. In us this is acquired instead of being congenital as in the lower animals. Many observations of infants and of adults who have recovered sight by means of the removal of the lens (cataract) prove the truth of this statement, and show that a combination of the impressions received from several senses is necessary in order to create the ideas we possess of external objects. A person blind from birth, upon obtaining vision, will not recognize forms like the cube, sphere, and pyramid, notwithstanding the sense of touch has long since made them familiar. Locke doubted this and the question, then unanswerable, since his time has received repeated answer. For example, a young man whose sight was restored in one eye, was unable by vision to distinguish a cat from a dog, both of which he was accustomed to fondle. He finally taught himself to know the cat by handling her frequently, meanwhile looking at her intently. A remarkable case was that of a child aged 4 years, blind from birth, who recovered sight by the operation for cataract. He gave evidence of his ability to see. The operation had occurred in a house with which the boy had become familiar by feeling his way about. After the operation, while going over the house, he at first felt and looked as he went, but for some time evidently preferred the guidance of touch, and eventually began to find his way by sight alone. Upon returning to his home, however, he was quite unable to discover his way by sight among objects perfectly familiar to him and for a long time closed his eyes in going from place to place. But when taken to a place entirely strange to him he used his sight without embarrassment, and finally overcame the difficulty in using sight at home.

In a third case a blind seamstress obtained her sight, and when shown a pair of scissors could not recognize without touching them. These examples indicate the amount of education necessary in the training of our automaton, which, once disciplined, subsequently makes no mistake unless something is wrong in the mechanism.

Our perception of solid form is the result of a union of the effects of two modes of perception, as is proved by the stereoscope. In looking through this instrument two slightly dissimilar pictures, such as are thrown upon the retina of the two eyes, when the observed object is near, by their difference in direction form an object in relief and the mind thus perceives one solid object instead of two flat ones. This conversion is an automatic process the result of education. Sir Charles Wheatstone, who invented the stereoscope, also investigated the singular fact that a body first held at a distance, and then closer to the eyes, always presents the same size to the mind, although the image on the retina is much larger. By bringing the pictures in the stereoscope nearer together, thus causing the eyes to converge, the object shown seemed to diminish in size, although the images on the retinæ were not changed in dimension. In a similar manner, if the pictures were separated until the direction of the eyes was made parallel, the size of the object was made apparently to increase in size. This proves that the idea of the size of near objects and the relative distance of their posts depends upon an automatic comparison of the size of the image on the retinæ and the degree of convergence of the eyes. (Dr. Carpenter discussed these phenomena more at length in the *Edinburgh Review* about 1860.)

At distances which make the direction of the eyes sensibly parallel, we no longer possess this muscular aid in determining size and relief, and our perceptions, depending mainly upon light and shade, are accordingly less distinct. At a distance we cannot distinguish objects actually in relief from carefully painted flat surfaces. This is really due to the absence of convergence, as proved by the fact that a photograph, the mountings being concealed, if seen with one eye alone appears to be an object in relief.

Passing to the automatisms of the higher intellectual processes, the lecturer discussed those uniformities which, some being general in the race, others being the result of special training, and already studied under the name of "laws of thought," markedly illustrate the doctrine of automatism as well as the power of the will to devote itself to such processes as may be chosen. Wordsworth has testified that his best poetry was created by allowing his mind to direct itself intently upon all the phases of his subject, and then waiting for a spontaneous outflow of poetical imagery from his mental mechanism. Mozart, whose musical faculty had from childhood been trained with most assiduous care, had only to think out the general plan of a composition, deciding as to the place to be given to solo, recitation, duet, quartette, etc., and then allow his thought to work of itself and evolve its own results. In the same way trained mathematicians solve difficult problems. But most instructive of all is the action of

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memory. We endeavor to recall some half-forgotten fact, name, or date. After fixing the attention upon the subject for a certain length of time, and recalling every accessible circumstance, we find it better to withdraw the attention, to "hang up" the subject, and leave the matter to time. The general result will be a sudden return of the missing fact to the consciousness. In all these cases of "unconscious cerebration," it is noteworthy that we must first give direction to the process, and, moreover, that in order to obtain results we must previously train the automata. Other instances were given.

Evolutions of the judgment are also common under the same conditions of a previous training, antecedent fixing of the attention, and, as far as possible, a voluntary development of the process. Thus an executor unable to decide as to the best solution of a difficult provision in a will, arranged a plan which, though unsatisfactory, seemed the most feasible, and then dismissed the matter from his mind. Some days later, on waking from a sound sleep, a perfect plan flashed into his consciousness and was accepted without change. Experience has shown that these automata, once trained, work far better when left alone than when the attention is fixed upon them. When we apply the theory of automatism to our beliefs, there arises the question as to whether we are responsible for them, and whether we can believe what we wish to believe. The reply is that if we have accustomed ourselves to give due weight to all the evidence which may affect our conclusions, we are not responsible for our belief. We may, however, close our mental eyes to certain aspects of the case, just as an unjust judge may refuse to admit evidence on one side and unduly admit it on the other. In such case we are directly responsible for what we believe.

THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE.—It is proposed to establish in this city a Polyclinic, and the faculty, so far as arranged, is constituted as follows: Dr. Chas. H. Burnett, Diseases of the Ear; Dr. J Solis Cohen, Diseases of the Throat and Nose; Dr. Henry Leffman, Clinical Chemistry and Toxicology; Dr. Richard H. Levis, Operative and Clinical Surgery; Dr. Morris Longstreth, Pathology and Post-mortem Examinations; Dr. Chas. K. Mills, Diseases of the Mind and Nervous System; Dr. Thos. G. Morton, Orthopædic and General Surgery; Dr. John B. Roberts, Applied Anatomy and Practical Surgery; Dr. Wm. Thomson, Diseases of the Eye; Dr. Jas. C. Wilson, Diseases of the Chest and General Medicine; Dr. John B. Roberts, Secretary. It is proposed to have a large building devoted solely to the purposes of the school. Dispensaries will be conducted in connection with each department, and instruction will be clinical and demonstrative, in series of short courses of from six to eight weeks; studies may be pursued in all branches or on special subjects. Demonstrators and assistants, with the professors, will give clinical lessons in each department daily. It is also proposed to furnish hospital accommodations for cases which require it.

ANNUAL ADDRESS BEFORE THE PHILADELPHIA ACADEMY OF SURGERY.—Dr. William Hunt will deliver the Annual Address before the Philadelphia Academy of Surgery on Monday evening, January 8th, at 8 o'clock, in the Hall of the College of Physicians —subject, Esmarch and Antisepsis.

COMPLIMENTARY DINNER TO PROF. AUSTIN FLINT, SR.—A number of prominent members of the medical profession of Philadelphia will entertain Prof. Flint at a dinner on next Friday evening. The chair will be occupied by Prof. Alfred Stillé.

SEMI-CENTENNIAL OF THE UNIVERSITY OF ZURICH.—The University of Zurich will, at the end of the current winter term, celebrate the fiftieth anniversary of its foundation.

LUMLEIAN, CROONIAN, AND GULSTONIAN LECTURES.—The Lumleian Lectures for 1883, at the Royal College of Physicians, will be delivered by Dr. A. B. Garrod, on "Uric Acid; its Relations to Renal Calculi and Gravel." The Croonian Lectures will be delivered by Dr. J. E. Pollock, the subject being "Modern Theories and Treatment of Phthisis;" and the Gulstonian Lectures, on the "Nature, Causes, and Treatment of Sterility in Woman," by Dr. Matthews Duncan.

STRAFFORD DISTRICT (N. H.) MEDICAL SOCIETY.—The 75th annual meeting of the Strafford District, New Hampshire, Medical Society was held at Dover, on December 19th, with Dr. S. C. Whittier, of Portsmouth, Chairman, and Dr. C. A. Fairbanks of Dover, Secretary. The following officers were elected for the ensuing year:

President.—Dr. John R. Ham, of Dover.
Secretary.—Dr. Charles A. Fairbanks, of Dover.
Treasurer.—Dr. Charles A. Tufts.

PORRO'S OPERATION.—On Nov. 27, DR. C. GODSON, Assistant Physician-Accoucheur to St. Bartholomew's Hospital, performed Porro's operation on a dwarf, aged 24, whose pelvis was distorted to an extreme degree. The patient was returned to her bed one hour after the commencement of the operation; the child was a girl, twenty inches in length, and eight pounds and a half in weight; the mother being but fifty-two inches in height. Up till November 29, the case was reported as doing well; the temperature had not risen above a maximum of 99.4° Fahr., and the pulse had never exceeded 80 beats per minute.—*British Medical Journal*, Dec. 2, 1882. Later accounts report steady progress toward cure.

THE PUBLIC HEALTH IN CONNECTICUT.—Dr. C. M. Chamberlain, Secretary of the State Board of Health, has just submitted his report for November, from which we learn that the record for November is in general more favorable than that for several preceding months. The prevalence of *scarlet fever* and of *diphtheria* increases the death-rates in several places. The probability of an increase in the frequency and malignancy of scarlet fever, stated in the last report, has become a certainty in repeated instances.

Measles is not reported in the mortality list, nor from any part of the State. Its prevalence for the last few years would indicate that there were few children left that had not had this disease, and in one or two instances its recurrence for the third time was mentioned.

Whooping-cough is reported more frequently than it has been for several months. Cases are stated to be in Simsbury, South Manchester, Haddam, and in the southern part of the State.

Diphtheria is reported from Avon, Hampton, Watertown, and Manchester—a few cases in each place.

The same general tendencies in *typhoid* and *malarial fevers* that have been noted the last few months continue. There is not any alarming prevalence of typhoid fever, nor has there been any degree of prevalence that would have been noticeable in former years, except in certain localities where there have been localized epidemics. The cases of typhoid fever are peculiarly interesting, because they are happening in localities where a case has not been reported for years, or where there have been very few cases. There has not yet been reported, taking the State as a whole, as

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many cases as occurred each year on an average before the appearance of malaria, although this year approaches it.

There was in many places, and in general everywhere, as far as reports are received, an unusual amount of sickness during the autumn months, more marked where the local unsanitary conditions were worst. There is no occasion for a panic over the appearance of scarlet fever, but it is the part of wisdom to prevent its spread as much as possible. The utility of a hospital for contagious diseases suggests itself strongly when we see child after child in a poor man's family attacked by contagion from which he might have been saved could the first case have been isolated, as has been done with success again and again by means of such institutions. The idea is not a popular one at first, but others less so have proved their claims for recognition.

Lung fever appears early, and apparently the mortality corresponds with that of last year. Above the average cases are reported from North Manchester, Watertown, Hampton, and Avon, and one fatal case from Guilford.

Review of the Situation.—In comparison with preceding months this has been quite a healthful one. But the large percentage of zymotic diseases, and the amount of sickness indicated, show plainly that there were many agencies at work that could have been prevented.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending December 23, 1882, indicate that cholera morbus, diarrhœa, typhoid fever, and diphtheria have increased, and that intermittent fever, pneumonia, dysentery, and remittent fever have decreased in area of prevalence. Including reports by regular observers and by others, diphtheria was reported present during the week ending December 23, or since, at 16 places, scarlet fever at 10 places, and measles at 4 places. Smallpox was reported at Richmond, Osceola County, December 27.

PRECAUTIONS AGAINST CHOLERA.—Dr. Hampshire, the Senior Medical Officer of Penang, India, in his report for the month of September, intimates that the spread of cholera in the East and around the Straits, and its gradual extension in a westerly direction have caused considerable anxiety to the health authorities. To prevent its spread, when it occurs periodically, all measures have been taken so far as the legal powers permit, but native prejudices do not allow of their being carried out as effectually as in European countries. Doubts are entertained by the public, under the at present necessarily imperfect verification and registration of disease, as to whether all cases of cholera that have occurred have really been registered as such; but during the past few months the death registers at the different town and suburban police stations have been frequently examined, with the view of detecting any local increase in the mortality, should such occur. And in the case of doubtful entries, further inquiries have been made at the house of the deceased, among relatives and friends, in order to verify the diagnosis.

Among Chinese, who bury their dead in coffins hermetically sealed, with free disinfection as a preliminary, no great danger is involved in the burial rites; but among Hindoos and Mahommedans the body is retained in a room, crowded with relatives and friends, for a period varying from twelve to thirty-six hours, no disinfectants being used in the meanwhile. It is urged that, as Hindoos and Mahommedans, many of whom are aliens, constitute less than fifty per cent. of the population, some concession on their part is due to the majority of the population.

OBITUARY RECORD.—Died in Munich, on Dec. 5th, PROF. VON BISCHOFF in the 75th year of his age. Prof. v. B. was born in Hanover, Oct. 28, 1807, and studied natural science and medicine in Bonn and Heidelberg. After having served as an assistant in Berlin and Bonn, he was called in 1836 to Heidelberg to the chair of Comparative and Pathological Anatomy; in 1843 he was called to Giessen to the chair of Anatomy and Physiology, and 1855 to the same position in Munich, which he filled up to the time of his death.

His reputation rests on his numerous and valuable contributions to the embryology of mammals.

NOTES AND QUERIES.

MEDICINÆ SPECIALIS MAGISTER.

To the Editor of THE MEDICAL NEWS.

SIR: I see it stated in a recent journal that the Faculty of Medicine in Paris proposes creating "a higher doctorate than the simple M.D. It is proposed to confer the degree of "Doctor of Medical Sciences," after special examinations, and perhaps only after original work. The same journal goes on to say that America rapidly adopts European ideas, and that we may perhaps soon hear of a similar degree in this country. It has been rumored in the recently published accounts of the New York Post-graduate Medical School that there is a possibility of a degree higher than M.D. being conferred by that institution. If this or similar colleges for graduates, hereafter established, confer a degree, nothing appears to me so appropriate as "Master of Special Medicine." Such colleges are especially designed to give instruction in the specialties; hence the title "Medicinæ Specialis Magister" (M.S.M.) seems a proper designation for one who has passed an examination in such branches. It corresponds with the present custom of conferring the higher degrees in arts and surgery, as, for example, Artium Magister, Scientiæ Magister, Chirurgiæ Magister, and is, I think, preferable to "Doctor of Special Medicine," or "Doctor of Medical Specialties," which might also be suggested with a considerable degree of propriety.

Yours respectfully,

JOHN B. ROBERTS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM DECEMBER 25, 1882, TO JANUARY 1, 1883.

PERIN, GLOVER, *Lieutenant-Colonel and Surgeon.*—Granted leave of absence for one month, from the 19th inst.—*S. O. 217 Department of Dakota, December* 20, 1882.

BILL, JOSEPH H., *Major and Surgeon.*—Will report to the commanding officer, Fort Omaha, Neb., for duty.—*Par. 4, S. O. 134, Department of the Platte, December* 21, 1882.

KILBOURNE, H. S., *Captain and Assistant Surgeon.*—Granted leave of absence for one month, with permission to apply through Headquarters Military Division of the Missouri for an extension of two months.—*S. O. 218, Department of Dakota, December* 21, 1882.

REED, WALTER, *Captain and Assistant Surgeon.*—Relieved from duty as attending surgeon, headquarters Department of the Platte, and will report in person to the commanding officer Fort Omaha, Neb., for duty.—*S. O. 134, Department of the Platte, December* 21, 1882.

TURRILL, H. S., *Captain and Assistant Surgeon.*—Upon being relieved from duty at Fort Omaha, Neb., will proceed to Fort Fred. Steele, Wyoming. and report to the commanding officer of that post for duty thereat.—*Par. 5, S. O. 134, Department of the Platte, December* 21, 1882.

HOPKINS, WM. E., *Assistant Surgeon.*—Granted leave of absence for two months, to commence January 1, 1883, with permission to apply for an extension of two months.—*Par. 1, S. O. 88, Military Division of the Atlantic, December* 28, 1882.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked, Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, JANUARY 13, 1883. NO. 2.

ORIGINAL LECTURES.

PHILADELPHIA COUNTY MEDICAL SOCIETY LECTURES.

ON THE PHYSICAL EXPLORATION OF THE LUNGS BY MEANS OF AUSCULTATION AND PERCUSSION.

A course of three lectures delivered by invitation before the Philadelphia County Medical Society.

BY AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

LECTURE II.

AUSCULTATION.

Delivered December 16, 1882.

THE exploration of the lungs by means of auscultation divides itself into the study: *First*, of the normal respiratory sounds and their abnormal modifications; *second*, of adventitious sounds, or râles; and, *third*, of vocal sounds, the latter including, with the loud or laryngeal, the whispered voice.

STETHOSCOPES.

The question whether auscultation should be mediate or immediate, is easily disposed of. It should be practised in both ways, according to the circumstances in particular cases. Laennec, as is well known, employed only mediate auscultation. He probably failed to recognize the value of immediate auscultation, because all his observations were made exclusively with the stethoscope. Some of those present may be interested in seeing the kind of stethoscope which Laennec employed. His first instrument was a cylinder of paper, consisting of three quires rolled together and kept in place by paste. He then tried instruments made of metal, glass, and wood, instead of the paper cylinder. Quoting his words, "In consequence of these various experiments, I now employ a cylinder of wood an inch and a half in diameter and a foot long, perforated longitudinally by a bore three lines wide, and hollowed out into a funnel shape to the depth of an inch and a half at one of its extremities. It is divided into two portions, partly for the convenience of carriage and partly to permit its being used of half the usual length. The instrument in this form—that is, with the funnel-shaped extremity—is used in exploring the respiration and the râles; when applied to the exploration of the heart and the voice, it is converted into a simple tube with thick sides, by inserting into its excavated extremity a stopper or plug traversed by a small aperture, and accurately adjusted to the excavation. This instrument I have denominated the *stethoscope*."

The stethoscope which I exhibit has an interest aside from the illustration of the kind which Laennec used. It not only belonged to Laennec himself, but was undoubtedly made with his own hands. Its authenticity, as having belonged to Laennec, is indubitable. It was given to me by a former colleague, the late Professor Choppin, of New Orleans, and it was given to him in Paris, by an old physician, who was Laennec's *interne* in the Hospital Necker, and who received it from Laennec himself. Laennec, as is known, was accustomed to make stethoscopes for his own use and for his friends. Moreover, the instrument bears intrinsic evidence of having been made by an amateur mechanic. When in the possession of the *interne* referred to (whose name I have forgotten), it was evidently not regarded with the same respect which it now claims, for the aural end has the traces of a penknife, showing that this sort of petty vandalism is not exclusively an American trait.

In connection with the stethoscope made by Laennec, I exhibit another, which is of interest, as having belonged to Valentine Mott, who obtained it in Paris, when the stethoscope devised by Laennec was in common use. This instrument, as you perceive, was made by a true mechanic. It is nicely polished and the ends are encircled with ivory.

In a recent lecture on the "Evolution of the Stethoscope," Samuel Wilks, of London, says, "I know not who invented the instruments with flexible tubes, but I have no doubt that a search into medical history would tell us." The stethoscope, with a single flexible tube, was devised by Carter Nestor Pennock. It was a great improvement on the wooden cylinders of every variety of shape devised by auscultators in different countries. Pennock's stethoscope consisted of a bell-shaped pectoral portion of metal, connected by a hollow flexible tube with a metallic ear-piece, the latter being introduced within the meatus auditorius. A still greater improvement was the binaural stethoscope devised by Cammann, in 1854. The advantages of this stethoscope are so great that, after a fair trial by any one, it is sure to supersede any other at present in use. After nearly thirty years from the date of its introduction by Cammann, it has come into considerable, but not as yet general, use throughout our own country, and it is but little used in other countries. I can speak of this instrument after ample experience, inasmuch as I have used it almost daily since 1855.

In my work on *Physical Exploration*, published in 1856, I stated that it was more difficult to judge of the quality and pitch of sound transmitted by Cammann's stethoscope, than with the wooden cylinder. This was an error, arising from my not then having used that stethoscope sufficiently to appreciate it fully. I corrected the error in a subsequent edition, but the error was quoted by Walshe, and appears in all the subsequent editions of his work on diseases of the lungs. Much to my regret, therefore, I may unwittingly have done something toward retarding the adoption of the instrument by our British brethren. Wilks, however, in his recent lecture, already referred to, appears to consider the binaural instrument as the result of the "evolution of the stethoscope" up to the present time, on the "principle of selection and the survival of the fittest," and he remarks that "the primitive instruments are indeed only to be found amongst the fossilized curiosities—the relics of former ages—on the antiquated shelves of some very old medical practitioner." The advantages of the binaural stethoscope relate to a conduction of sounds far better than by any uniaural instrument, and to greater facility in its employment. But there are certain obstacles to be overcome in the way of the appreciation of the first of these advantages. Want of knowledge of these obstacles is, I am persuaded, a reason for the fact that, after nearly thirty years, this stethoscope, except in some parts of our own country, is not in common use. In the first place, many stethoscopes, sold as the binaural stethoscope of Cammann, are essentially defective in their construction. Let me

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indicate the points which are often overlooked by instrument makers. Cammann arranged the curves at the aural extremities so that when the terminating bulb is inserted into the ear, the opening in the bulb should have the direction of the external auditory canal. The conduction of sound is chiefly by the column of air within the instrument. This fact is readily demonstrated by obstructing one of the tubes leading to the pectoral end; the sound is prevented from reaching the ear on the side of the obstructed tube.

Another point in the construction is the size of the terminating bulb. This should not be too large to enter the meatus readily; and, on the other hand, if too small, passing too far into the meatus, it occasions discomfort and even pain. If these points be not properly attended to in the construction, the instrument is almost useless, and many instruments which have come under my notice have been defective therein. The flexible tubes should not be stiff. If they be so, every movement of the pectoral extremity acts within the ear as a lever, and occasions discomfort. The flexible tubes should move noiselessly. Sometimes the tubing used gives rise to a creaking sound which obscures other sounds. The elastic or the spring which is to hold the ends of the instrument within the ear should be neither too weak nor too strong. All these are minute points, but they are essential. It is proper to state that they are attended to by the instrument makers who made the first stethoscope under the personal direction of Cammann, Messrs. Tiemann & Co., and I have seen stethoscopes made by Ford, of New York, with which no fault could be found. I am afraid it is not safe to trust to the majority of instrument makers, and yet I hesitate to make a sweeping assertion of this kind.

Another obstacle applies to all perfectly constructed stethoscopes, namely, a humming sound belongs to the instrument, and this, for a time, confuses the attention. After a little use this obstacle disappears, the humming ceases to be observed, and the attention is free for the chest sounds. Before this, however, the instrument is often thrown aside as unsatisfactory. I have had much experience in giving practical instruction in auscultation to classes, and I have always found that at the commencement of a course most members of a class appreciate thoracic sounds better with the ear applied directly to the chest than by the use of the binaural stethoscope, but after a short time the stethoscope becomes so attractive that it is difficult to enforce sufficient exercise of the ear in immediate auscultation.

Wilks, in his interesting lecture on stethoscopes, refers to a fact first pointed out to him by Andrew Clark, which relates to a peculiarity of the binaural instrument in the objective appreciation of sounds. It is as follows: "If each ear-piece be separately used, and any sound be made near the mouth-piece, it is heard in the ear itself; but if the two pieces are employed together, the sound is heard at the spot where it is produced." "This fact," he adds, "corroborates the theory as to the value of a double set of senses, ... the two ears listening to the same sound more thoroughly appreciate its objectivity." This fact is easily verified.

I should, perhaps, refer to Alison's differential stethoscope, which I exhibit. It is a binaural stethoscope, but with a double pectoral extremity. Sounds from two situations are received simultaneously, but from each situation, into one ear. The theory is that the sounds from the two situations can in this way be best compared with each other. The theory is fallacious. If we wish to bring into comparison two sounds which are not musical, or if we wish to compare the quality of two musical notes, we do not desire to listen to both at the same instant, but to each in succession. The increased conduction of sounds by means of a binaural conductor is not obtained by Alison's stethoscope, and a little practice will render it evident that with Cammann's instrument sounds in different situations, listened to consecutively, are much better compared than by the so-called differential stethoscope.

THE NORMAL VESICULAR MURMUR OF RESPIRATION.

Auscultatory sounds, like those obtained by percussion, are to be studied analytically with reference to their differential characters. They are to be studied with special reference to differences in pitch, quality, and intensity; but the other points of distinction which have been mentioned already are to be considered; namely, the duration of respiratory sounds, the rhythmical succession of the sounds of inspiration and expiration, and the apparent nearness to or distance from the ear, especially of vocal sounds. It is needless to say that in the study of auscultation, as of percussion, the analysis of the normal sound should precede and be the point of departure for determining the differential characters of the abnormal sounds which are signs of disease. Entering upon the consideration of respiratory sounds, the normal pulmonary murmur of respiration is to be first considered.

Seeking naturally to give an idea of this murmur by likening it to something familiar, Laennec found no better comparison than to the sound of a person breathing tranquilly in sleep. Feeble as is this comparison, a better has not been suggested. The comparison by Skoda to the sound of air sucked in by the lips, is quite as indefinite. It has been compared to the sound of the wind passing through foliage. This is not an improvement on the comparison by Laennec, except that it has something of a poetic savor. From this comparison the quality of the murmur has sometimes been called breezy. Analyzed with reference to its component characters, the intensity varies so much in different healthy persons that nothing distinctive is to be derived from this source. The pitch, as compared with that of the more important of the morbid respiratory sounds, is low. Here is one distinctive feature. The quality, like that of the normal resonance on percussion, is *sui generis*. It cannot be described by words which give any definite idea of it. It has no close analogy to any other sound produced outside of the body. It can only be correctly appreciated by direct observation. The quality may be called vesicular for the same reason that the quality of the normal resonance on percussion is so called; in each of these normal signs the quality is incident to the vesicular structure of the lungs. This structure is so peculiar that it cannot be fully represented by any artificial contrivance by which the movements of air within the structure may be imitated; hence, the fact that the quality of the respiratory murmur, as well as that of the normal resonance on percussion, is *sui generis*. These characters of pitch and quality relate to the inspiratory sound. The relative characters of the expiratory sound are of importance in distinguishing the normal murmur from certain morbid respiratory signs. The expiratory sound is much shorter than the inspiratory, and also much weaker. It has no vesicular quality. I know of no better way of expressing the quality than by calling it simply blowing. It is not unlike the sound of the expired breath from the open mouth.

Laennec's explanation of the vesicular respiration was that it is due to the friction of the air in the pulmonary alveoli. I need not take time to show that this explanation is unsatisfactory. To say, as does Skoda, that the murmur is due to the resistance which the cells offer to the air, is simply to state a fact without any explanation. Other explanations, alike un-

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satisfactory, are, that it is due to contraction of the bronchial muscular fibres in the act of inspiration, as held by Blakiston and Leaning; and, as held by Zamminer and Seitz, that it is produced at the mouths of the infundibula, in the same way as sounds by blowing over the opening of a hollow key. Eichhorst, author of a German treatise on *The Methods of Physical Investigation in Internal Diseases*, (1881), after citing these explanations, assumes that it is a physical impossibility for the respiratory sounds to be produced by the currents of air within the pulmonary air passages, and he considers, therefore, that their source must be within the larynx, being there produced by the projection of the vocal cords, and conducted downward by the air tubes. This is a revival of the doctrine of M. Beau, author of a work on *Auscultation* (1856); an author whose fantastic theories were deemed of sufficient consequence to be always quoted by contemporaneous writers, but almost invariably quoted in order to dissent from them. This glottic theory of the mechanism of the vesicular murmur of respiration is readily disposed of by a very simple experiment. Remove the lungs from the body and separate them from the trachea. Now, if respiration be imitated by means of the bellows, the nozzle being introduced into a primary bronchus, or by means of one of the flexible tubes connected with Davidson's syringe, and the lung be auscultated, either by immediate auscultation or the stethoscope, the vesicular murmur is reproduced, much intensified as compared with the murmur in life. This experiment, assuredly, disproves the physical impossibility of the production of respiratory sounds within the pulmonary air passages, and, consequently, the glottic theory of the production of the vesicular murmur.

For the true explanation (as it seems to me) of the vesicular murmur I am unable to give credit to any writer. In my work on *Physical Exploration*, published in 1856, I submitted the following inquiry: "May not the peculiar quality be owing to the separation of the sides of the cells and the capillary tubes which, to a greater or less extent, come into contact, and, owing to the moisture of the tissues, are slightly adherent during the collapse of the lung incident to expiration?" And I added, "We shall see hereafter that this is the most rational explanation of an important and highly distinctive physical sign of disease." Allusion in the latter sentence was made to the crepitant râle. It is noteworthy that Laennec, in describing the differences between the vesicular murmur and bronchial respiration, says that the latter loses the "slight crepitation" which belongs to the former. The expression "slight crepitation" distinguishes more accurately than any other term the peculiar quality of the vesicular murmur, and, at the same time, it denotes the mechanism. The explanation which, more than a quarter of a century ago, I submitted in the form of an inquiry, I have ever since taught as the true explanation. As corroborative of its truth, I submit the following experiment:

Take the lungs of any animal of sufficient size (a sheep or a calf), twelve or twenty-four hours after the animal has been killed, and introduce the nozzle of a pair of bellows into either the trachea or one of the primary bronchi. Imitate respiratory acts by means of the bellows. If the stethoscope be placed directly upon the lungs, or with a folded napkin intervening, with each inflation a crepitating character of the sound is apparent. The inflation of portions which contained but little or no air, *i. e.*, collapsed portions, gives a perfect representation of the crepitant râle. Now if the intervening folds of cloth between the stethoscope and the chest be sufficiently increased in thickness, the crepitating character is modified, and the quality becomes hyper-vesicular; in other words, we obtain an intensified representation of the vesicular respiration. The lungs from the human body will, of course, answer as well as those of the calf or sheep. The crepitation may disappear after the inflations by means of the bellows have been continued for some time. The expression by Laennec, "slight crepitation," therefore, expresses not only the character of the murmur, but the mechanism of its production.

I refer to an experiment made by Penzoldt, and cited by Eichhorst, in his work[1] on the methods of physical exploration, as exemplifying either the disadvantage of not having studied respiratory sounds analytically with reference to pitch and quality, or the influence of the imagination on the observation of sounds, or, perhaps, of both these two sources of error. It is stated that if a portion of a solid organ, the liver, for example, be placed over the larynx of a healthy subject, the laryngeal respiration is transmitted to the ear of the auscultator without change; but if a portion of inflated lung be so placed, the laryngeal respiration becomes changed, by its transmission, into a vesicular respiration. This latter statement is adduced by that author to show that the vesicular murmur of respiration is not produced within the pulmonary alveoli, but that it is the laryngeal respiration conducted through air vesicles. Let any observer, not biased by theoretical expectations, and familiar with the distinctive characters of the vesicular and the laryngeal respiration as determined by analytical study, repeat this simple experiment, and it will be found that there is no essential difference between the sounds as transmitted through the solid organ and the inflated lung. The inspiratory sound does not lose its tubularity, acquiring in its place the vesicular quality; and the relative pitch of the inspiratory as compared with the expiratory sound, is the same as when the stethoscope is placed immediately upon the integument covering the larynx. I make this statement after having repeatedly made the experiment. Whether this statement or that of Penzoldt is correct, can be readily determined by any one who will take the little trouble requisite for repeating the experiment, and comparing the sounds analytically and impartially.

BRONCHIAL RESPIRATION.

Of the morbid respiratory signs, the one which offers, in its distinctive characters, the strongest contrast to those of the normal vesicular murmur, is the *bronchial respiration*, and there is an advantage, therefore, in considering first this sign. Let me enumerate the distinctive characters of the bronchial respiration, as determined by analytical study, although, doubtless, they are familiar to those whom I now address. The intensity of both the inspiratory and the expiratory sound is often greater than that of the vesicular respiration; but this is not an essential feature. The inspiratory sound has no vesicular quality, but, in place thereof, a quality expressed by the term tubular. It is identical with the sound of a current of air through a tube. The pitch is high. The expiratory sound, usually more intense than the inspiratory, has a tubular instead of the simple blowing quality of the expiratory sound in the normal vesicular respiration; it is higher in pitch than the inspiratory sound; it is prolonged to the length of, or more, of the inspiratory sound, and, instead of being continuous with the latter, as is the case with the inspiratory and the expiratory sound in the normal vesicular respiration, the two sounds are separated by a brief interval of time. The latter char-

[1] Lehrbuch der Physikalischen Untersuchungsmethoden innerer Krankheiten, von Dr. Hermann Eichhorst, Braunschweig, 1881.

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acter is due to the fact that the inspiratory sound ceases a little before the cessation of the inspiratory act.

No one doubts that the sign having the characters just enumerated is heard over solidified lung. It occurs, therefore, in the second stage of pneumonia, over lung compressed into a solid mass by the pressure of liquid or air within the pleural space; also, in cases of phthisical exudation and induration, as well as in other affections which solidify the pulmonary structure. That the sign represents exclusively solidification of lung, however, is not universally acknowledged. The opinion is held by many that it represents, also, pulmonary cavities. When I come to consider the cavernous respiration, I shall undertake to demonstrate that this opinion is erroneous. I believe the bronchial respiration to be the respiratory sign of complete or considerable solidification of lung, and of no other morbid physical condition. The only room for doubt as regards this limitation of the significance of the sign, is afforded by cases of dilatation of the intra-pulmonary bronchi. In these cases, as it seems to me, the presence of this sign is due, not to the bronchial dilatation, but to the condensation of lung surrounding the dilated tubes. The artificial illustration of this sign is easy with Davidson's syringe. If the tube conducting from the central bulb be placed close to the ear, and covered with the hand, in order to exclude extraneous noises, the current of air produced by compression of the bulb causes a well-marked tubular sound. A similar sound is heard when the tube conducting to the bulb is placed close to the ear, the sound in this instance being caused by an expansion of the bulb. If we attach to the tube conducting from the central bulb other tubes of more or less length, and varying in size, the tubular sound is heard at any point with an equal force of the current of air, and the pitch is found to be somewhat higher the smaller the size of the tube. Blowing into the tube with the mouth will answer as well as Davidson's syringe; and it is not necessary that the current be strong in order to produce a tubular sound. I oppose this simple experiment to the statement by Eichhorst that it is a physical impossibility for the movement of air in the bronchial tubes to produce a sound. It seems surprising that an author should make this statement when it may be disproved by an experiment which can be made at any moment.

The mechanism of the bronchial respiration, of course, involves the passage of air in tubes; but it is a question in what tubes is the sound produced when this sign is heard over the chest. Laennec's explanation was simple, and, in the main, it has not been disproved. He referred the sound chiefly to the passage of a current of air in the larynx, trachea, and the large bronchi at the root of the lungs. He accounted for the absence of the sign over the healthy chest, first, by the presence of the vesicular murmur, which drowns the bronchial sound; and, second, by supposing that the air vesicles containing air conduct sounds less readily than solidified lung. The better conduction of sounds by solidified lung than by the normal inflated lung was denied by Skoda. Skoda based his denial on physical principles and on certain experiments relating to the conduction of the voice. I shall refer to these experiments in connection with vocal signs. I will simply say here that I have repeated them, and with a result the same as stated by Skoda. Another experiment by Skoda is easily repeated; namely, placing successively over the larynx portions of solidified lung and of inflated lung, equal in volume, and comparing the transmission, through each of these media, of the laryngeal respiration. This experiment shows, according to my observations, that Laennec was in error in supposing that solidified lung is a better conductor of sound than healthy lung. It has been asserted that if a watch be placed alternately beneath portions of solidified and of healthy lung, of equal volume, auscultation shows the solidified lung to be the better conductor of sound. This experiment I have repeatedly made, and with a result the reverse of the assertion that the solidified lung is a better conductor. I may add that up to a recent date I had believed, in accordance with the general belief at the present time, that sounds were better conducted by solidified than by healthy lung containing air.

Laennec supposed that a current of air within the intra-pulmonary bronchi, and even in those of small size, coöperated in producing the bronchial respiration. This supposition has been deemed improbable, at least when an entire lobe is solidified, as in cases of lobar pneumonia. Skoda and others have maintained that a current of air cannot take place within a solidified lobe. This view seems not irrational, considering that the lobe is enlarged to the limit of a full inspiration, that its volume diminishes very little with expiration, and enlarges as little with inspiration, and that the respiratory movements of the chest on the affected side are more or less restricted. Experiment, however, shows that air passes freely through the bronchial tubes within a lobe solidified by pneumonia. In a lung removed from the body, the upper lobe completely solidified and the upper two-thirds of the lower lobe solidified, the unsolidified portion of the lower lobe was readily inflated either by the bellows, or by the breath, the current being inserted either into the trachea or the primary bronchus. Moreover, in the condition just stated, a vesicular respiratory murmur was appreciable over the lower third of the lower lobe during life, as well as by inflation after death, a fact showing the free passage of a current of air within the intra-pulmonary bronchi of the solidified upper two-thirds of the lobe. I assume, therefore, that it is incorrect to say that air does not pass into the bronchial tubes within a lobe which is completely solidified. Assuming this, the question then is, what part does the air in the intra-pulmonary bronchi have in the production of the bronchial respiration? That Laennec was right in supposing a tubular sound to be produced by a current of air in these tubes is not irrational. Such a sound, in fact, may be produced after death by a current of air from the bellows or the mouth directed into the bronchus connected with a solidified lobe.

But there are grounds for attributing the bronchial respiration, chiefly, if not exclusively, to the larynx and trachea. The fact that in essential characters relating to pitch and quality, the normal laryngeal and the tracheal respiration are identical with those of the bronchial respiration, is perhaps sufficient in itself to prove that the latter is in reality the former conducted into the solidified lung. How can this be, if solidified lung be not a good conductor of sound? The answer to this question is, the conduction is not by the solidified lung, but by air within the intra-pulmonary bronchi. This, as it seems to me, enters into the explanation of the bronchial respiration. The air in the intra-pulmonary bronchi is the conducting medium, as it is in the stethoscope. The explanation does not conflict with the fact that solidified lung is a poorer conductor of sound than healthy lung. For good conduction of sound it is not necessary that the conducting column of air be large. The space containing air within the tubes of the binaural stethoscope, is not larger than that in the medium sized bronchi. The explanation is consistent with the absence of bronchial respiration when the bronchial tubes are obstructed by either an accumulation of morbid products, or by pressure from without. The following experiment illustrates the conduction by the air within the intra-pulmo-

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nary bronchi: In a lung from a body dead with acute pneumonia, the upper lobe was completely solidified. When a current of air from the mouth was directed into the trachea, and the stethoscope applied to the solidified lobe, a well-marked bronchial respiration was appreciable. By compressing with the fingers the bronchus leading to the solidified lobe, a very feeble and distinct respiratory sound only was perceived. A well-marked bronchial respiration returned when the compression was suspended. Dr. Powell, of London, cites an experiment made by MM. Boudet and Chaveau, as demonstrating the conduction from the larynx and trachea of the bronchial respiration. On a horse affected with pneumonia, well-marked bronchial respiration over the solidified lung was ascertained. Tracheotomy was then performed, and when the wound in the trachea was held widely open, the bronchial respiration disappeared, while exaggerated vesicular respiration over the other lung continued. On introducing a tube within the wound the bronchial respiration over the solidified lung returned. This experiment illustrates not only the fact of the conduction from the larynx and the trachea, but also that the conducting medium is the air within the bronchial tubes.

Experimental observations thus appear to prove conclusively that suppression of the vesicular murmur and conduction of the tracheal and laryngeal respiration are the two factors in the mechanism of bronchial respiration, admitting that solidification does not render the lung a better conductor of sound. This admission, however, will be found to be not easily accorded with certain clinical facts. To some of these reference will be made in connection with vocal signs. One difficulty relates to bronchial respiration. If lung containing air within the alveoli be a better conductor of sound than solidified lung, why is it that we do not have bronchial respiration when the vesicular murmur is suppressed by emphysema? Here is an evident inconsistency. If, however, the explanation which has been given of the bronchial respiration be proven, it is not disproved by apparently conflicting facts. The proper course to pursue is to seek to reconcile these with the explanation. I am not prepared to say how this is to be done in the instance just cited.

The higher pitch of the expiratory, as compared with the inspiratory, sound in the bronchial respiration accords with what is observed when the stethoscope is placed upon the larynx or trachea. The explanation is the narrowed orifice at the glottis by an approximation of the vocal cords in the act of expiration, when compared with the separation of the cords which takes place in the inspiratory act.

CAVERNOUS RESPIRATION.

From the bronchial I pass to the *cavernous respiration.* Laennec recognized the existence of a cavernous respiration, but he regards it as having the same characters as the bronchial respiration, its distinctive feature being a perception as if the air entered a space larger than that of the bronchial tubes. He described two modifications, in one the air seeming to enter and emerge from the ear of the auscultator, and in the other the sound giving the idea of a movable veil between the cavity and the ear. He called the former of these modifications, a blowing respiration, and the latter veiled blowing. It must be admitted that Laennec's account of cavernous respiration is indefinite and unsatisfactory. The criticisms of Skoda are undoubtedly just. But Skoda fell into an error greater than that of Laennec, with regard to this sign, for he denied *in toto* the existence of a cavernous, as distinct from bronchial respiration. He says (quoting his language), "I consider Laennec's bronchial and cavernous respiration to be one and the same murmur; his blowing bronchial to be a loud bronchial murmur, and his *souffle voilé* to be an unimportant modification of the bronchial respiration." So great has been the influence of Skoda's teachings, that the most recent German writers hold to the identity of the characters of the bronchial and the cavernous respiration. The individuality of cavernous respiration has been, and is acknowledged by English and French authors, but its differential characters were not distinctly indicated prior to 1852. I believe that I do not assume too much in saying that these characters were first fully pointed out in the prize essay published in that year, to which I have already referred, and in my work on *Physical Exploration*, published in 1856. My description of cavernous respiration was based on the analytical study of respiratory sounds with reference to pitch and quality, conjoined with autopsical examinations. In the instances given in my essay, the examinations after death were made, and written reports furnished, by Prof. John C. Dalton.

With reference to its distinctive characters, the cavernous respiration is to be contrasted, on the one hand, with the bronchial respiration, and, on the other hand, with the normal vesicular murmur. Contrasted with the bronchial respiration, the points of difference are not less marked than those which distinguish the bronchial respiration and the normal vesicular murmur. The cavernous inspiratory sound has no tubular quality, and is low in pitch; the expiratory sound is usually more feeble than the inspiratory, its duration or length variable, and its pitch is lower. With an appreciation of these differential characters, the cavernous and the bronchial respiration cannot possibly be confounded. The quality of the sound in both the cavernous inspiratory and expiratory sound may be called blowing, in distinction from a tubular quality. The quality is like that of the expiratory sound in the normal vesicular murmur. The contrast of the cavernous respiration with the normal vesicular murmur is less strong than with bronchial respiration. In both the cavernous respiration and the normal vesicular murmur, the pitch of the inspiratory and of the expiratory sound is low, and the expiratory is lower in pitch than the inspiratory sound. The essential point of difference relates to quality. The vesicular quality is wanting in the cavernous respiration. Given a respiratory sign in which the inspiration is non-vesicular and non-tubular, with lowness of pitch, the expiration having the same quality but still lower in pitch, the sign can be no other than cavernous respiration. In confirmation of the presence of this sign, clinically, circumstances other than its distinctive characters may be taken into account. It is limited to a circumscribed space; around this space the respiratory sound is either vesicular or the signs of more or less consolidation are present, the latter being true in a large proportion of instances; the coexisting vocal signs and those obtained by percussion are indicative of cavity, and evidence is sometimes obtained by inspection.

Artificially the cavernous respiration may be illustrated by the following simple experiment: The cavity is represented by an India-rubber balloon of the size of a large orange, with thin walls, and two openings connected with a tube of greater or less length. Attaching to one of the tubes a pair of bellows, or, what answers equally well, using the breath from the mouth, the balloon is inflated and the air withdrawn in imitation of the respiratory acts. Placing a binaural stethoscope over the balloon, or listening with it close to the ear, the movement of the air into it and out of it gives rise to a low-pitched blowing sound, the outward lower in pitch than the inward current. These observations, identical with those of the cavernous respiration, may

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be contrasted with tubular breathing produced artificially in the manner already stated.[1]

The sign may also be reproduced within a cavity with flaccid walls in a lung removed from the body. I had recently under observation a hospital case in which there was well-marked cavernous respiration at the summit of the chest. After death, in that situation was found a cavity of the size of a large orange, the anterior wall of which consisted of only thickened pleura, and collapsed when the lung was removed from the body. The cavity was readily and largely inflated by the breath directed into the trachea. With the stethoscope applied upon the lung, over the cavity, a loud, low-pitched, blowing sound was perceived when the air entered and when it escaped from the cavity. It is not difficult for those connected with large hospitals to obtain this demonstration of the distinctive characters of the cavernous respiration.

AMPHORIC RESPIRATION.

Amphoric respiration is to be regarded as a variety of the cavernous, and claims but a few words. As is well known, it is a sign *par excellence* of perforation of lung and pneumothorax; but it is not a very infrequent sign of a pulmonary cavity. Whenever present, if pneumothorax be excluded, it is diagnostic proof of a cavity with rigid walls, that is, walls which do not expand notably with inspiration, and collapse with expiration. As produced in cases of pneumothorax, it may be represented artificially by blowing through a small tube into an inflated India-rubber bag of considerable size. As produced in a pulmonary cavity, it is represented by directing a current of air from the mouth or a pair of bellows over the opening into an India-rubber ball of the size of an egg or an orange. It may be demonstrated to be a sign of a cavity with rigid walls in a lung removed from the body. In the specimen just referred to, of a cavity with flaccid walls, which furnished a cavernous respiration after death and during life, a little below this cavity the lung was solidified; but within a circumscribed space well-marked amphoric respiration was perceived when a current of air from the mouth was directed into the lung. An incision revealed a cavity of about the size of an English walnut, surrounded on all sides by solidified lung.

BRONCHO-VESICULAR RESPIRATION.

The three signs which have been considered, namely, the normal vesicular murmur, the bronchial respiration, and the cavernous respiration (the first of these, a normal sign, and the two others abnormal signs), may be said to constitute the simple types of the respiratory sounds heard over the chest. Other signs consist of the characters of these in combination, and may, therefore, be distinguished as compound types. Of these signs, the one which is of most importance I shall consider under the name *broncho vesicular respiration*. This name was proposed in my work on *Physical Exploration*, published in 1856. It has been adopted, to some extent, by writers in this country. Prof. Da Costa prefers the term *vesiculo-bronchial*. The pressing need of a term expressive of certain morbid auscultatory sounds must, as it seems to me, be evident to any one who has given attention to the study of these sounds. The morbid physical conditions represented by the sounds referred to are the varying degrees of solidification of lung, falling short of a degree sufficient to give rise to a purely bronchial respiration. In a purely bronchial respiration, the inspiratory sound is devoid of any vesicular quality; the quality is entirely tubular. In the broncho-vesicular respiration, the inspiratory sound is both tubular and vesicular; that is, it consists of these two qualities combined. The tubular and the vesicular quality may be combined in different proportions; in some instances the vesicular, and in other instances the tubular, quality predominates. The predominance of the one or of the other of these qualities depends on the degree of solidification; if the solidification be but slight, the vesicular quality exceeds the tubular, and, *per contra*, if the solidification be nearly sufficient for the purely bronchial respiration, there is but little of the vesicular quality, the tubular being in excess. The broncho-vesicular respiration, thus, as a representative sign, covers all the modifications of respiratory sounds, denoting solidification, between the normal vesicular murmur and a purely bronchial respiration. And by means of this sign it is practicable, not only to recognize the existence of solidification which is insufficient in degree to give rise to the bronchial respiration, but to judge of the degree of solidification, that is, whether it be very slight, slight, moderate, or closely approximating to that requisite for a purely bronchial respiration. The combination of the vesicular and the tubular qualities carries with it other characters which correspond to the different proportions in which the two qualities are combined. In proportion as the vesicular quality predominates in the sound of inspiration, the pitch of the sound is low; and, conversely, the pitch is raised in proportion as the tubular quality predominates. The expiratory sound is prolonged, high in pitch, and tubular in quality, in proportion as the inspiratory sound is high in pitch and tubular in quality; in other words, in proportion to the degree of solidification; and, conversely, the expiratory sound is less prolonged, less high, and less tubular in proportion as the vesicular quality in the inspiratory sound predominates; in other words, in proportion as the degree of solidification is small.

The name broncho-vesicular is intended to supersede such terms as rude, rough, and harsh respiration. These terms are not only inappropriate, but they lead to error. An exaggerated vesicular respiration without solidification of lung may be ruder or more harsh than the sound which represents the latter condition. An imperfectly developed dry bronchial râle may give roughness to the respiratory murmur. These terms, thus, do not denote any fixed, definite, morbid physical condition, and erroneous inferences are liable to be drawn from them in cases of disease. Still more unsatisfactory is the name *indeterminate respiratory murmurs* introduced by Skoda, which embraces the abnormal sounds expressed by the term broncho-vesicular. Under the name indeterminate Skoda includes, quoting his language, "Respiratory murmurs having neither the character of vesicular nor of bronchial respiration." He admits that "No distinct indication can in any particular case be drawn from such a murmur," and he adds, "All respiratory murmurs which give us no information as to the state of the parenchyma of the lungs I call indeterminate respiratory murmurs, and any subdivision of them appears to me to be useless." The name "indeterminate" with the meaning as defined by Skoda, is still in vogue with German writers. The name is applied to sounds due to simple bronchitis, as well as to phthisis and other affections. It must be sufficiently obvious that with the confused idea of the sign, a confusion implied in the name "indeterminate," it cannot be of much practical value in diagnosis. It is far otherwise with the broncho-vesicular respiration, its characters having been determined by analytical study. The sign is of great practical value in the diagnosis of phthisis, in

[1] The sign is not produced by blowing into a balloon with but one opening. I infer, therefore, that for the cavernous respiration in life, cavities must have openings for the exit as well as the ingress of air.

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the early stage of pneumonia, and the stage of resolution, and in other pulmonary affections involving partial solidification of lung. The sign represents the latter condition, and nothing else. It cannot be produced by a simple bronchial affection. It is not less determinate as regards its distinctive characters and its pathological significance, than any of the respiratory signs.

A case of pneumonia during the stage of resolution affords illustrations of all the gradations of this sign. The sign is present as soon as absorption has removed the contents of a sufficient number of air vesicles for a vesicular quality to be perceived in the sound of inspiration. The tubular quality now predominates, and the respiratory sound is still prolonged, high, and tubular. With each successive day, as absorption progresses, the vesicular quality in the inspiratory sound increases, and the tubular quality diminishes. With these changes in the inspiratory sound, the expiratory sound on each successive day is less prolonged, less intense, less light in pitch, and less tubular in quality. At length, resolution being complete, the vesicular quality becomes, for a time, more marked than in health, all the characters of the broncho-vesicular respiration having disappeared.

The characters of the broncho-vesicular respiration may be studied as illustrated in the healthy chest. In the infra-clavicular region, especially the sternal portion, and in the interscapular region, the respiratory murmur, as compared with that over other parts of the chest, is broncho-vesicular; that is, owing to the proximity of the larger bronchi, the characters of the bronchial and of the vesicular respiration are combined. This is more apparent on the right than on the left side. The respiration in these situations has been called the *normal bronchial respiration*. This expression is inexact, inasmuch as the respiratory sounds are not purely bronchial. It is more correct to say that in these situations there is a *normal broncho-vesicular respiration*. This normal broncho-vesicular respiration may be still better observed by auscultation of the lungs removed from the chest. With the human lungs or those of the calf or sheep, if the nozzle of a pair of bellows be introduced into the trachea, the respiratory acts imitated, and the stethoscope placed either on the lung, or a thin layer of cloth only interposed, the mixture of the characters of the bronchial and the vesicular respiration at and near the apex of the lungs, will be rendered very marked by contrast with the respiratory sounds over other portions.

BRONCHO-CAVERNOUS RESPIRATION.

The combination of the characters of the bronchial with those of the cavernous respiration, and of the cavernous with the vesicular murmur, constitute other compound types. Seitz, the editor of the later editions of Niemeyer's work on the *Practice of Medicine*, has described a respiratory sign which he calls a "*metamorphosizing respiratory sound.*" The metamorphosis is in the inspiratory sound. The sound at its beginning is described as rude, and the last two-thirds as bronchial. Bearing in mind that with German writers there is no cavernous, as distinguished from bronchial, respiration, I infer the latter part of the respiratory sound to be cavernous. Such a metamorphosis was described by me in my prize essay, published in 1852, together with the physical conditions found after death. This is one variety of a broncho-cavernous respiration. The first part of the inspiratory sound is a bronchial respiration. It takes place before the air has entered freely into a cavity. One of the characters of the cavernous inspiration is that it is evolved slowly. When the air enters freely into the cavity, the bronchial is superseded by the cavernous respiration. The sign thus denotes a cavity, with proximate solidification of lung. Another variety is an association of a bronchial expiration with a cavernous inspiration. This variety is not infrequently met with. The explanation is simple. In bronchial respiration, the expiratory sound, as a rule, is more intense than the inspiratory. The inspiratory sound may be relatively quite feeble, and it is sometimes wanting. On the other hand, the expiratory sound in cavernous respiration, as a rule, is feeble, and may be quite so, or it may be wanting. Now, it is easy to understand that when a cavity is situated near a portion of solidified lung, the auscultator may obtain over the cavity an inspiratory sound which is cavernous, that is, low in pitch and blowing in quality, associated with an expiratory sound which is bronchial, that is, high in pitch and tubular in quality.

VESICULO-CAVERNOUS RESPIRATION.

The characters of the vesicular and of the bronchial respiration are combined when the pulmonary structure surrounding a cavity remains intact, or but little affected. The vesicular quality is then derived from the surrounding lung. The recognition of this compound type may seem a refinement in auscultation, but that in certain cases it is readily recognized, clinically, I am well satisfied. It may be called a *vesiculo-cavernous respiration.*

DIMINISHED AND SUPPRESSED VESICULAR MURMUR, AND INTERRUPTED RESPIRATION.

Diminished vesicular murmur, without change in pitch and quality, and suppression of the murmur, which are physical signs of much value, taken in connection with other signs and with symptoms, do not here claim consideration. Of the sign called interrupted, wavy, and cog-wheeled respiration, I will only remark that, as an isolated sign, it has but little clinical importance; it derives whatever value belongs to it from its association with other signs. I shall conclude this discourse with some remarks on prolonged expiratory sound, either existing without an inspiratory sound, or when the latter is too weak in its character to be distinctly appreciable.

PROLONGED EXPIRATION.

It is remarkable that Laennec should have given so little attention to the study of the sound of expiration. James Jackson, the younger, was the first to appreciate the clinical value of a prolonged expiratory sound. As early as 1832 he called attention to the significance of a prolonged expiratory sound at the summit of the chest in the diagnosis of pulmonary phthisis. He noticed not only the prolongation, but its resemblance in character to the prolonged expiration in bronchial respiration. Since his observations this sign has been included in the group of signs to be sought after in the diagnosis of phthisis. It may or may not have significance in relation to that disease. A prolonged expiration which may be more or less high in pitch and tubular in quality, is not very infrequently observed in healthy subjects at the summit of the chest on the right side. It belongs to the normal broncho-vesicular respiration, and may be present when the characters of this sign, owing to feebleness of the inspiratory sound, are not appreciable. I have known a prolonged high-pitched expiration to exist on both sides at the summit of the chest, no other morbid signs being therewith associated. Absence of other signs of disease is the fact to be relied upon in judging that the prolonged expiration is a normal peculiarity. But, as a morbid sign, prolongation of the expiratory sound is not always evidence of phthisis nor of any affection involving solidification of lung. It is a sign in cases of pulmonary emphysema, and may occur whenever the expiratory act is increased in force and length, or whenever

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there is an obstacle to the free exit of air from the smaller to the larger bronchial tubes. How is this difference in the significance of the sign to be recognized clinically? This question can be definitely answered. If the prolonged expiratory sound be high in pitch and tubular in quality, exclusive of the instances in which it has these characters as a normal peculiarity at the summit of the chest on the right side, the sign denotes lung solidified by a phthisical or some other solidifying morbid process. It has precisely the same significance as when it is associated with a high-pitched tubular inspiratory sound in the bronchial respiration. If, on the other hand, the prolonged expiratory sound have characters, as regards pitch and quality, the same as in the normal vesicular murmur, differing only in length and intensity, it is not a sign of phthisis, nor of any other affection involving solidification of lung. This variety of prolonged expiratory sound, associated with other signs, is diagnostic of pulmonary emphysema.

These differential characters pertaining to the sign, the difference in its significance being correspondingly marked, exemplify the importance of the analytical study of auscultatory phenomena. With few exceptions in works treating of auscultation at the present time, a prolonged expiratory sound, as a morbid sign, is considered without reference to the differences in pitch and quality on which depend its diagnostic significance. If these differences be not taken into account, the sign is as likely to lead to error as to a correct diagnosis.

ORIGINAL ARTICLES.

AMPUTATIONS, AND THEIR ANTISEPTIC DRESSINGS.

BY J. HENRY C. SIMES, M.D.,
ASSISTANT SURGEON TO THE EPISCOPAL HOSPITAL, PHILADELPHIA.

ANY experience in any method of treatment, whether the result proves favorable or unfavorable, is, if carefully noted, a means of assisting the treatment in similar cases which may occur at a future period. More especially is this a fact when applied to those methods which from their novelty or theoretical claims are urged by their discoverers.

Antiseptic surgery, at the present time, can scarcely be considered as a new method of treatment in surgical operations, nor are its claims now based entirely upon theoretical grounds; yet it is far from being accepted as a general method of treatment; more particularly is this true of American surgeons. In this city I know of no hospital in which its surgeons have fully and thoroughly carried out the details necessary to give their treatment the name of antiseptic; that is to say, they have not attended to the minute directions, and in many cases the principal features have been omitted in their operations. For these reasons I have thought a brief outline of my experience, during the past summer while on duty at the Episcopal Hospital, would perhaps aid in assisting to form some conclusions as to the value of antiseptic dressings when applied to amputations.

My reasons for not continuing the usual mode of treatment, viz., non-antiseptic, and adopting the antiseptic, was that upon beginning my term of service it was found that there had been for the previous spring and winter months, an almost uninterrupted series of secondary complications (erysipelas, cellulitis, etc.) following the amputations which had been performed in the hospital; these complications were not limited to this hospital alone, but upon further investigation it was ascertained that in most of the hospitals throughout the city, similar sequelæ to operations had prevailed. Therefore, it seemed to me a change of some kind was justifiable, in order to endeavor to check the unfavorable course taken by the process of healing after amputations. The antiseptic dressing had not been, during this year, employed in the hospital. The opportunity to test its usefulness or not, as the case might be, here presented itself, and a trial was determined upon.

The procedure followed, in the cases coming under my care, was essentially that recommended by Lister, and consisted, in outline, of the carbolized spray; catgut ligatures; close apposition of the wound by means of silver sutures; thorough drainage, obtained by the use of rubber drainage-tubes of large calibre (one-fourth of an inch); washing the wound with carbolized water; oil-silk protective over the line of incision; carbolized gauze wet with carbolized water; dry carbolized gauze; rubber cloth, which was securely kept in close relation to the parts by the employment of a narrow elastic bandage at its margin; and, finally, the whole held in position by a muslin roller. The instruments used during the operation were placed in a tray of carbolized water.

The results obtained by the employment of the above dressing were very satisfactory, as may be seen from the following cases. These cases, seven in number, are not given in full, but they may be summarized by stating that they consisted of two amputations of the forearm, two amputations of the arm, one amputation at the knee-joint, one resection of the knee, and one amputation of the female breast. In none of the cases was there any secondary complication, no erysipelas, no cellulitis, no abscess. Certainly here was a change for the better, since only a month previous one or all these complications accompanied similar operations, and the questions which naturally presented themselves were: Was the favorable change owing to a change in the manner of dressing? Was it due to a change in the time of the year? or, Was it dependent upon any other outside influence?

These were all very satisfactorily answered to my mind, and convinced me that there was but one cause to account for the results which so very markedly differed from those previously obtained. The, to me, convincing circumstance exists in the progress of other operations performed in the same hospital, at the same time and treated in the same wards, but under a different method of treatment; the dressing was not antiseptic, and the results were not so favorable. These cases were one amputation of the forearm, three amputations of fingers, one amputation of thumb, and one amputation of toe. In all of the above cases there occurred either a complication of erysipelas, cellulitis, abscesses, or all three. When contrasted with the former cases—those dressed antiseptically, there are observed very evi-

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dent and important differences. Here are two series of cases, both placed under the same surrounding influences, both receiving the same care and attention, yet each following a different course. A cause for such a distinct and marked difference in the course of the two series is to be expected and naturally sought after, and the only appreciable one is found in the different methods employed in dressing the cases. In nothing was there any known variation made in treating the two series, except in that of the different dressings—the one antiseptic, the other not; and it would seem only reasonable to conclude that this difference was the one which influenced the ultimate results.

Not only were these differences of secondary complications following the operations noticeable, but there was also a great variation in the symptoms which followed as a result of operative interference; and when comparing the two series one with another, it was found that the cases dressed antiseptically presented a much more favorable record than those cases in which this method of treatment had not been employed.

A symptom common to both series, but one in which the difference was most decidedly marked, was that of *pain*. In the cases in which the non-antiseptic dressing was used this symptom was always present, and habitually demanded anodynes for its relief; while, on the contrary, with the antiseptically dressed cases, the pain was so slight—indeed it may be said absent—that in none were anodynes indicated, and their administration was omitted during treatment.

The amount of *traumatic fever*, in the two series of cases, differed in a very appreciable degree. In the cases in which the antiseptic dressing was used, this symptom was generally very poorly defined, and its presence only indicated by the employment of the thermometer; while in the non-antiseptic dressed cases, there was no exception: each case had a distinct and quite evident attack of surgical fever. This variation in the relative amount of fever was very apparent when the temperature records taken during the progress of healing of the wounds were contrasted. Thus, the average maximum temperature in the antiseptic dressed cases was 99.6° Fahr., while in the non-antiseptic it was 102.5° Fahr.

The *aspect* of the wounds in the two series of cases was very different. The cases in which the antiseptic dressing was used presented a perfectly normal appearance of the surrounding parts; there was an entire absence of all redness and tumefaction, only a very faint red blush was observed along the line of incision and surrounding the punctures produced by the wire sutures. In the cases not treated antiseptically, there were seen, on the contrary, a marked diffused redness and considerable œdema of the neighboring tissues.

The symptom of *tenderness* upon pressure, in the two category of cases, was singularly unlike. In the one—the antiseptic dressed, it was so slight as scarcely to merit a place as a symptom; while in the other it was a very prominent and always present feature.

The *length of time* necessary to complete the healing of the wounds in the two series of cases varied very much. Those cases in which the antiseptic dressing was used healed much sooner than those in which it was not. This circumstance was, undoubtedly due to the secondary complications which interfered with the process of healing in the latter cases.

There is one point more I wish to speak of, and it is in reference to the application of the antiseptic dressing. In reading over the directions given by the advocates of this method of treatment, it does appear a very formidable and extremely tedious one. But in its practical application, however, I am quite satisfied, from my experience with it, that these seeming drawbacks to its use do not exist. It is something out of the usual routine, and the first trials made with it may, and indeed do, call for a little more time and attention on the part of the surgeon; yet with a little experience, and the assistants and nurses becoming familiar with its application, the dressing can be applied with as great facility as that ordinarily employed. A circumstance not to be overlooked, and it also bears upon the question of time occupied in applying this method of treatment, is that the renewal of this dressing is not required as often as the non-antiseptic. Most of the cases which were dressed antiseptically had the dressing renewed two or three times in the course of a week, frequently the interval was longer—once in four or five days. In the non-antiseptic dressed cases, it was generally necessary to renew the dressings daily, and they never remained longer than two days without renewal. Therefore, it is seen that the time actually occupied in dressing these two series of cases was much longer in the non-antiseptic than in the antiseptic.

TOTAL LOSS, BY SLOUGHING, OF BOTH PAROTID GLANDS.

BY C. M. RAMSDELL, A.M., M.D.,
OF LAMPASAS, TEXAS.

ON the 26th of August, 1882, my brother, Dr. F. R. Ramsdell, was called into the country to see a case of fever. The patient was Mr. Lewis C., white, carpenter, æt. 29, native of Michigan; height, 5 ft. 11 in.; weight, 150 pounds; family history, consumption on the side of the father, whom he resembles. For several weeks he had been working among the cedar brakes on the Colorado river, where he contracted chills and fever, which soon compelled him to quit work.

When seen, Aug. 26th, he was delirious, very restless, with marked opisthotonos, and complained of constant and severe pain in the back part of the head and neck. His temperature in the axilla was 106° F., pulse 120, resp. 32, spasmodic. He was given potassii brom. gr. x, tr. aconit. gtt. iij, spt. æth. nit. f℥ss, every two hours until fever abated; then cinchonia alkaloid gr. xx, in four doses, one to be taken every four hours. On the following day I saw the patient, and from that time on the case was treated by my brother and myself in company.

During the night of the 26th, the fever left him

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and returned on the afternoon of the 27th; the temperature reached 105°, but there was no opisthotonos and but little delirium. The urine was scanty and very dark, coffee-colored, and much pain was felt in the lumbar region. He was given spt. æth. nit. a teaspoonful every three hours for two days, and the same amount every six hours for several days longer, the urine gradually becoming normal in quantity and color. During the night of the 27th he took quinine gr. xxx, with pulv. doveri gr. x.

There was no return of the fever, but the patient was greatly prostrated so that he could scarcely sit up in bed. He was stupid, and talked incoherently much of the time during the 28th, still complaining of pain in the head. On the morning of the 29th his left jaw began to swell, and by noon the whole left side of the face and neck was much swollen and very painful, especially in the parotid region. There was also intense pain in the left ear, and the patient was continually turning from side to side and crying out. Morphine in doses of gr. ¾ to gr. j, every four hours, and local applications of vinegar and hot fomentations, gave only slight relief. On the 30th, the right parotid region became inflamed, and the swelling on that side was soon as great as on the left, reaching an enormous extent on both sides, extending down the neck to the shoulders and backwards beyond the mastoid region, so that the auricles were thrust upwards and forwards, giving a very grotesque appearance to the sufferer's countenance.

The prostration was so great, and the rigidity of the jaws such, that food was administered with difficulty. He was given half an ounce of brandy in egg-nog or milk-punch every two hours for three days, and at longer intervals, alternating with animal broths, for about two weeks. Quinine gr. v was also given night and morning from Aug. 28 to Sept. 8. His tongue was enlarged and heavily coated, mouth very dry, and hearing much impaired. On Sept. 1st there was a discharge of thin, ichorous pus from the left meatus auditorius externus. On the 2d, a similar discharge took place from the right, and fluctuation was noticeable just back of the lobe of each ear. He also had a slight chill, and night sweats set in, for which he was given 20 drops of aromatic sulphuric acid three times a day for four days.

On Sept. 3d, the abscess on the left side was lanced at a point half an inch below and behind the lobe of the ear, and the day following that on the right was opened at a corresponding point, in both cases giving exit to a large quantity—an ounce or more—of thick yellow pus mixed with a substance resembling the white of egg. From this time on the pain was much less severe, and the morphine was discontinued, but, as the patient kept calling for it at frequent intervals, to pacify him a number of powders were made out, consisting only of wheat flour, labelled "morphine," and after taking one of these he always seemed to be greatly relieved. His bowels were inclined to be constipated, but an action was procured about once in two days by the use of small doses of sulphate of magnesia.

On the 8th, he was put upon the following tonic which he continued to use for three weeks.

℞.—Tr. nucis vomicæ, . . . f℥iiss.
Tr. cinchonæ, . . q. s. ad. f℥iv.—M.
S. A teaspoonful four times a day after eating.

An attempt was made to apply compresses to the sides of the neck in order to secure thorough evacuation of the abscesses and prevent burrowing of the pus, but the patient would not tolerate any kind of dressing, pulling them off as fast as they could be applied.

On the morning of the 10th, the openings made by the lancet, which had become considerably enlarged by sloughing, were found occluded by what the attendants thought to be "proud flesh." This was removed by pulling it out with forceps, and was found to be the parotid glands almost entire, the superficial portions having sloughed away so that only a few fibres of tissue held them in place. The left gland came out easily, the right required a little cutting to detach it from its connections. Both presented a similiar appearance, being somewhat spongy and having deep sulci, apparently where large bloodvessels or nerve-trunks had passed through their substance, and the right gland still showed something like the outlines of the natural shape, but the left was not larger than the first joint of the thumb, and its true character could be made out only by its position and its internal structure.

After the removal of the glands as much as three fluidounces of thick pus escaped from each cavity. There was no hemorrhage nor has there been any paralysis, so that no important nerves or bloodvessels could have been involved. No other glands were implicated nor was there any burrowing of pus. The discharge from the ears ceased in a few days after the glands came away, the only treatment directed to them having been a daily syringing out with warm water.

On September 13th, he was given sixty granules containing one-tenth of a grain of calcium sulphide each, of which he took three per diem until all were used. He recovered strength slowly, the wounds remaining open until about the middle of October.

By the 10th of November he was entirely well, except slight stiffness of the jaws. He then complained of having more "heart-burn" than he used to have, and said that his mouth seemed dryer than natural. A careful examination with a fine probe showed Steno's duct to be entirely closed on the left side, and to consist only of a *cul-de-sac* about one-fourth of an inch deep on the right.

At the present time, November 25th, his gastric trouble has disappeared and his mouth has regained its natural amount of moisture, doubtless through an increased activity in the remaining salivary glands. The loss of the parotid glands has caused no deformity beyond a slight depression and cicatrix at the site of the openings made by the lancet. The hearing is normal.

This case seems to be unique. Flint, *Practice of Medicine*, p. 401, says that parotiditis is an occasional complication of typhus and typhoid fever, and that in such cases considerable sloughing of the

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areolar tissue frequently occurs, but neither he nor any other writer, so far as I know, mentions loss of the gland as a possible result.

MEDICAL PROGRESS.

CUTANEOUS MANIFESTATIONS OF MALARIA.—PROF. VERNEUIL and DR. A. MERKLEN give the following conclusions in a paper with the above title:

1. Herpes is a frequent manifestation of malaria.

2. It may precede the access of the intermittent fever, occur during any one of the three stages of the attack, or after the sweat. There is consequently no etiological correlation between herpes and the fever, in spite of their frequent coincidence.

3. Malarial herpes possesses no special characteristics. Its most frequent seat of occurrence is on the face, and while usually discrete, it may occasionally become confluent.

4. The black crusts and vesicles of herpes are associated with the grave and pernicious forms of malarial fever.

5. Exceptionally, malarial herpes occurs under the form of zona.

6. In all forms, malarial herpes may be preceded or accompanied by vaso-motor troubles, disturbances of the sensibility of the skin in its neighborhood, and may perhaps indicate a nervous origin of the complication.—*Ann. de Dermatol. et de Syphilog.*, November 25, 1882.

THE COMPLICATION OF LABOR WITH OVARIAN TUMORS.—DR. R. LOMER, of Leipzig, contributes a paper on the above subject to a recent number of the *Archiv für Gynäkologie*. His conclusions are based upon the collections of cases made by Playfair and by Jetter. We shall only quote those which relate to treatment. But we may remark, first, that the tumors in the cases in question are always small, for the reason that large tumors are commonly found out before labor begins; and it is obvious that only a tumor small enough to be contained in the pelvic cavity can obstruct labor. Dr. Lomer's first practical rule is one of which the wisdom is obvious. It is, that in labors complicated with ovarian tumor, interference should not be too long delayed. 2. In all cases an attempt should be made to push the tumor out of the way, above the pelvic brim. 3. If this cannot be done, the puncture of the cyst should be the next alternative. 4. Should the contents of the tumor be too viscid to flow through a canula, a free incision should be made into the cyst-wall. Dr. Lomer remarks that from this measure to the pulling down of the cyst, ligature of its pedicle, and removal of the tumor—that is, vaginal ovariotomy—would seem but a step. Nevertheless, the latter operation has never yet been done, lack of time usually having been a sufficient obstacle. When the cyst has once been emptied, vigorous pains have forced down the child, and so put a stop to the operator's further proceedings. 5. All further attempts at emptying the tumor are dangerous, and should not be attempted. 6. When the tumor can neither be pushed up nor diminished in size, the choice must be made, according to the peculiarities of each case, between perforation and Cæsarean section.—*Medical Times and Gazette*, December 16, 1882.

A DOUBLE SUPERIOR VENA CAVA.—DR. H. REX reports such a case in which the right superior vena cava was formed by the union of the right common jugular and axillary vein, and was joined at the angle of union of these two vessels by the right vertebral vein. It passed in front of the trunk of the innominate artery and pulmonary vessels into the right auricle. The left superior vena cava could clearly be separated into a vertical and a horizontal portion; the vertical portion was formed by the union of the left common jugular, axillary, and vertebral veins, and, passed backwards in front of the carotid and subclavian arteries, and in front of the ligamentum arteriosum and pulmonary vessels to the left side to reach a position behind the left auricle. The transverse portion was then bent on itself in the left auriculo-ventricular furrow, and entered the right auricle below the left pulmonary veins.—*Centralbl. f. die med. Wissen.*, November 18, 1882.

CHOREA AND RHEUMATISM.—DR. THOMAS R. FRAZER, F.R.S., narrates a case of chorea which shows in a most marked manner the relations between chorea and rheumatism. This relationship has long been recognized. First referred to by Bouteille and Berndt, it was afterwards acknowledged by Copland, Scudamore, Abercrombie, and more recently stated in the exact form of statistical enumeration by Hughes, Kirkes, Sée, Roger, and many other physicians. Its existence is now generally admitted, although occasionally it is regarded as a mere coincidence, the relationship being relegated even to the trivial bond which connects any depressing agent with the production of a disease. A case such as that which he at this time described, undoubtedly affords very strong support in favor of a causal relationship. It affords supports from two aspects of the case—from its time of occurrence, and from the results of the treatment. The former is so significant, in the first occurrence of the choreic disease as well as in its subsequent appearance during a relapse of the rheumatic fever, that it is impossible to overlook it. The latter has, in addition to its equally clear significance, the further value that it constitutes a description of evidence, the quantity of which, so far as he knew, was very limited. He referred for evidence of probably a similar description to the fact that some cases of chorea have been treated with success by Dr. Weir Mitchell and Dresch with the same remedy that produced such striking results in his patient. The details of these cases he has not learned, and he therefore cannot tell if they illustrate in so clear a manner the relationship between rheumatism and chorea by showing that the most certain remedies for the former disease with which we are acquainted—the several compounds of salicyl—may exert a like curative action upon chorea. It would be important to still further test this point by treating a number of cases of chorea by salicyl compounds, and especially cases where the chorea does not present so close a relationship to the rheumatic affection as to suggest the possibility of its being a mere symptom of rheumatism. This view is, indeed, one that has been already adopted. Its existence led Dr. Frazer to dwell upon the importance of avoiding any all-pervading opinion in regard to this disease. Nothing will appear more obvious, when the known facts in regard to chorea are considered, than that it is far from being the product of any single pathological condition. There is now much evidence to show that, at times, it is accompanied by a lesion of the corpus striatum, at others of the medulla oblongata, at others of the medulla spinalis, at others of some part of the peripheral nervous system, at others of the heart, and at others by no lesion that can be discovered in any of these situations.

Dr. Frazer can scarcely hazard an opinion as to its production in the present case. The embolic theory is here entirely inapplicable, because of the rapidity

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with which the disease disappeared on two separate occasions. The mere existence of cardiac disease, of rheumatic origin, seems equally insufficient to afford an explanation. It existed before the chorea, it has persisted after its disappearance; and, further, the chorea was rapidly cured by salicylates, whereas salicylates do not directly affect the occurrence or the course of cardiac disease in acute rheumatism. A reflex influence, originating from the inflamed joints, cannot account for the chorea, as it often appears in rheumatic patients, while no inflammation of joints is present; and, in our case, the joints were on several occasions acutely inflamed, without a reappearance or an exacerbation of the chorea. Such a case would almost indicate that chorea may be a mere manifestation of acute rheumatism, in the same sense as the joint or heart affections, a mere complication of that disease, produced, it may be, a rheumatic inflammation of some portions of the central nervous system, whether true nerve-substance or surrounding media.—*British Medical Journal*, December 9, 1882.

TREATMENT OF DIPHTHERITIC SORE THROAT.—DR. W. ALLAN JAMIESON has used M. Barff's boro-glyceride in conjunction with salicylic acid, in the treatment of this disease, and the results of this combined treatment have been highly satisfactory. The saturated solution of boro-glyceride in glycerine causes no pain when painted on the inflamed, ulcerated, or sloughy mucous membrane, but its use is immediately followed by relief to the symptoms. The disease, however, causes blood-poisoning, evidenced by the fever and the albuminuria, and against this the salicylate of sodium acts energetically, as has been seen in the recorded cases, which are but examples of what occurred in many others. With this treatment there have been no recurrences, no formation of abscesses; recovery has in all been rapid and satisfactory. In conclusion, he recommends a trial of the boro-glyceride in glycerine in ulcers of the mucous surfaces, as of the cervix uteri. The treatment has another advantage over any form of gargle, that by painting the inflamed surface we keep it at rest, instead of, as in the act of gargling, causing painful and injurious movement by the unavoidable contraction of the muscles of the palate and pharynx. In the case of children, even, little difficulty was experienced when they found not pain, but comfort, followed its use.—*Edinburgh Medical Journal*, December, 1882.

A NEW MOXA.—Under the name of "*crayon-feu*," DR. MOSES describes a preparation made as follows: Charcoal powder, 30 grammes; nitrate of potash, 4 grammes; pulverized iron, 5 grammes; benzoin, 1 gramme. The whole to be made up, with some adhesive substance, into forty crayons. He so obtains a hard preparation, which is easily inflamed by a match, and which he proposes for the cauterization of poisoned wounds, and when the actual cautery is required.—*Gaz. Hebdomadaire*, Dec. 1, 1882.

MYOSITIS OSSIFICANS.—At a recent meeting of the Vienna Medical Society, Prof. Podrazki exhibited a soldier affected with the rare condition which has been termed myositis ossificans. Four weeks previously the man had applied for treatment, on account of an intense inflammation of the muscles on the front of the right upper arm, apparently set up by severe gymnastic exercise. The muscles were large, hard, and uneven, and the elbow-joint was fixed in flexion. The hardness was removed, and some increased mobility was obtained, by massage and the application of cold. At the end of two weeks a hard, round, movable tumor developed in the flexor of the elbow, which was evidently due to an ossification of the brachialis anticus. At first it was movable, the upper part appeared to be cartilaginous, and it was evidently not connected with the periosteum. Podrazki has seen, in the course of nineteen years, two cases in the practice of Pitha quite similar to this in their characters. In those two cases neither iodide of potassium, nor any other treatment adopted, had any influence. In a discussion which followed, Prof. Weinlechner stated that he had twice seen similar small spots of ossification in the muscles on the front of the leg, due, in each case, to a traumatic cause. Kundrat expressed the opinion that some supposed exostoses on the thigh proceed from muscles. Their form and seat correspond to certain muscles. Their greater frequency in men, and especially in muscular individuals, suggests that their origin is traumatic. They constantly become adherent to bone in the course of their growth, and hence are commonly thought to be primary exostoses.—*Lancet*, December 16, 1882.

MALIGNANT ŒDEMA.—BRIEGER and EHRLICH, working in Frerichs' clinic, have recorded (*Berliner klin. Wochen.*, No. 44) two cases of an affection associated with typhoid fever in which they recognize a disease that in animals has been called "malignant œdema." This malady is an infectious one, and dependent on, or at all events associated with, a bacterium which has sufficiently well-defined characters. The exciting cause of the malignant œdema in the authors' cases was a hypodermic injection of a musk solution administered as a stimulant to overcome the state of profound collapse into which both patients had fallen. Much swelling of the subcutaneous tissue, with emphysematous crackling and discoloration of skin at the site of the former injection (in the thigh in both examples), coming on in forty-eight hours, were the features descriptive of the malignant œdema. The authors remember to have met with another example of the affection in a case of diphtheria, but here there was no obvious exciting cause, and the emphysematous and œdematous conditions developed about the front of the chest. Inoculations of some of the fluid from the diseased thigh of the typhoid patients, performed on rabbits and guinea-pigs, brought about the usual characters of malignant œdema at the focus of vaccination, and the animals died in a few days. The existence of the septic vibrios was proved by the microscope (after the usual method of preparation), both in the fluids of the patient and in those of the animals experimented upon. Brieger and Ehrlich regarded their patients as suffering from a *mixed infection*, the virus of enteric fever and that of malignant œdema being both present at the same time. There are many facts in medicine which might be looked upon as demonstrating the predisposition which one complaint establishes for another—noma following measles and other acute specific diseases, tuberculosis after measles and whooping-cough, joint-suppurations after typhus, septicæmia after scarlatina, and many other examples. In the language of bacterial pathology, the human garden, by the action of one bacillus, is prepared and fitted for the growth and development of another micro-organism, which in the normal state of health would not have found so suitable a nidus.—*Medical Times and Gazette*, December 16, 1882.

TREATMENT OF FETID BRONCHITIS.—DR. E. LANCEREAUX recommends the hyposulphite of sodium in the treatment of fetid bronchitis; he combines it with the syrup of eucalyptus, 4 grammes of the hyposulphite to 30 of the latter. He has seen the greatest improvement in five cases treated on this plan.—*Bull. Gén. de Thér.*, November 30, 1882.

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THE EXISTING STATE OF OUR KNOWLEDGE CONCERNING THE BACILLUS MALARIÆ.

HOWEVER erroneous and ill founded were the conclusions of Dr. Salisbury, in the matter of the micro-organism he announced as the cause of malaria, his observations must be acknowledged to have become a part of the history of a subject which promises to be of vastly greater interest and importance than was for a long time anticipated. The names of other observers since Salisbury, but before the announcement in 1879 of the discovery by Klebs and Tommasi-Crudeli of a bacillus which is the cause of malarial disease, have been more or less associated with a micro-organism of similar properties, but no decided impression was made until the last-named published their results.

These observers found in the earth of malarial districts, in Italy, numerous shining oval and mobile spores, .95 of a micro-millimetre in the longer diameter. They were able to cultivate these spores in the animal body as well as in culture experiments, and the animals infected by them exhibited not only the clinical course of malarial disease as seen in man, but also the post-mortem appearances; while the bacillus was also found in the blood of such animals, taken after death. The spores develop in the animal body, as well as in culture experiments, into long threads, which are at first homogeneous, but later divide, while new spores develop in the interior of the segments. The position of the spores which are found either at the poles, or in the middle of the segment, serves as a mark of distinction between this and other pathological bacilli.

Following Klebs and Tommasi-Crudeli, Marchiafava and Cuboni, in Italy (*Archiv für Experimentelle Pathologie*, vol. xiii.), studied the blood of men ill with malaria. In this they found spores and bacilli which they declared to be identical with those described by the former. The spores included in the white blood-corpuscles were sometimes so numerous as to seem to fill them completely. Similar studies on malarial patients by Lanzi, and again by Peroncito, led to the same conclusions.

Succeeding these, Marchand published in Virchow's *Archiv*, vol. lxxxviii., p. 104, April, 1882, some observations really made in 1876, whence he concluded that there exists in the blood, in the cold stage of intermittent fever, mobile and flexible rods presenting slight swellings at their ends, and sometimes also at the middle. These end-swellings he thought also might be of the nature of spores.

More recent still are the elaborate experiments of Prof. Ceri, of Camereno, Italy, published in the *Archiv für Experimentelle Pathologie*, vols. xv. and xvi., 1882. These consisted of culture experiments with organisms found in malarial and other soils, of experiments on animals, and culture experiments with quinine. They resulted in proving that the spores could be cultivated—Ceri applying the term *natural germs* to those found in the atmosphere and soil, and *artificial germs* to those which result from their culture; that animals could be infected by their injection into the blood, though to a less degree by the cultivated than by the natural germs, the former growing weaker in successive generations; and that the infecting properties could be retarded by the application of heat to culture fluids, and the introduction of quinine into them, certain degrees of the former, and strengths (1:800) of the latter making the culture of the spores impossible and arresting the putrid fermentation induced by them. The practical application of these facts is self-evident.

Finally the opportunity has recently been presented to Dr. Franz Ziehl to test these results clinically (*Deutsche Medizinische Wochenschrift*, Nov. 25, 1882) in three typical cases of malaria, in all of which the spleen was enlarged. In all three the bacilli above described were found in the blood taken from any part of the body by the prick of a needle, and examined in the fresh state, or dried in a thin layer upon a cover glass, by simply passing the latter over a flame. These have been preserved by Dr. Ziehl for three months without undergoing any change.

The bacilli thus observed were of different lengths, but usually were from one-fourth to the entire diameter of a red corpuscle. The majority of those measured were about 4 micro-millimetres long and .7 broad. Their ends were swollen and roundish.

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The ratio of the diameter of the former to the latter varied, being sometimes as 1 to 2, sometimes more and sometimes less. They presented active flexions and movements among the red corpuscles, their motion being so slow that they often remained for half an hour in the field of view afforded by a Zeiss's objective F, and ocular I (about 410 diameters). With the same amplification there was present for the most part but a single bacillus in one field, and never more than three. In two of these cases *the use of quinine was followed by prompt relief and the disappearance of the bacilli from the blood in seven and nine days* respectively. The third case improved under the use of Fowler's solution but, unfortunately, no further examination of the blood was made.

Subsequently, Dr. Ziehl examined the blood of twenty-five persons, healthy or ill of other conditions than malaria. In *only one of these twenty-five* did he find bacilli, and these in considerable numbers. The man was a diabetic, in whom the disease clearly succeeded upon exposure. There was no history of malaria, but Dr. Ziehl, remembering that diabetes mellitus has been occasionally traced to malaria, put his patient upon quinine. The daily excretion of sugar, which had been reduced by opium and diet to one-half the quantity noted on admission, was not further reduced, but the *bacilli disappeared from the blood in eleven days* after the treatment was instituted. It would seem, therefore, that quinine acts as a parasiticide, in some way destroying the bacillus, or, at least, interfering with its development.

Should these observations be confirmed, and it must be admitted that the whole chain of evidence is much more conclusive than that adduced in favor of a *bacillus tuberculosis*, the whole mystery of the efficacy of quinine in the treatment of malaria would be solved. It is evident, also, that the question is one of much easier solution than that of the bacillus tuberculosis, and we predict a speedy settlement of it.

With a view of completing the presentation of the matter, we must mention a microbe claimed to have been discovered in the blood of persons suffering from malarial fever by Richard (*Comptes Rendus*, vol. xciv. p. 49), a French investigator, and named by Laveran *oscillaria malariæ*. This infests the red-blood disk, and its development is said to be analogous to that of a parasite in the lentil. We condense from our contemporary, the *Philadelphia Medical Times*, the annexed description of the microbe. In the blood of malarial subjects will be found some corpuscles presenting on their periphery a minute light and perfectly round spot, but which are otherwise exactly like the normal corpuscles. In a further stage of development the spot is larger and surrounded by a wreath of fine black nodules; around them hæmoglobin—recognized by its yellowish-green color—is deposited in the form of a ring, which diminishes as the microbe grows, until nothing is left of the cell except a marginal zone, whence the hæmoglobin is completely absent. Thus the microbe completely occupies the corpuscle, being still surrounded by the ring of black nodules. Finally, the fully developed oscillaria, which possesses several scarcely visible prolongations, perforates the membrane and escapes into the liquor sanguinis. Occasionally the prolongations, or fibres, which have a power of motion, alone perforate the membrane, and the microbe itself remains within the cell wall. Sometimes, also, the fully-grown microzyme is seen to move, and its fibres oscillate rhythmically, as "thin twigs would when held by their thicker ends and rapidly shaken." This movement continues about an hour, when it ceases, and only the dead body of the parasite is left. The dead parasites lose their shape, the ring of pigment is dissolved, and the whole appears as a gray mass, including a few black nodules, which are subsequently liberated and rapidly absorbed by the leucocytes.

Such is the somewhat fanciful description by Richard of the *oscillaria malariæ* which, he says, he was able to demonstrate in the blood of all persons suffering from malarial infection who came under his charge, while the severity of the disease was proportionate to the number of microzymes found in the blood. Kelsch and "a few other observers" are referred to as having noted these same phenomena. We have no critical comment to make upon these organisms other than that the changes described are strikingly similar to certain ones undergone by the red-blood corpuscles in the process of crenation and drying.

THE MEANING OF NYCTALOPIA AND HEMERALOPIA.

MEDICAL terminology, and particularly that of ophthalmic surgery, is often accused of being formidable, and it is not too much for those who undergo the labor of mastering it to expect that they shall be in possession of terms that are at least definite, if not etymologically correct.

Unnecessary changes are of course to be avoided, and if the name given to a disease or symptom can claim the universal consensus of medical writers, if it involves no absurdity and is free from ambiguity, the wisdom of tampering with it may be doubtful, even if it cannot be defended on either scientific or literary grounds. But if its etymology is more than questionable, its application absurd, and its use confusing, certainly the sooner it is consigned to the limbo of obsolete words the better. Nyctalopia and hemeralopia seem to be much in this position.

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If we wish to record the fact that a patient's right leg is paralyzed, we do not do so by stating that his left is vigorous, and though we may indicate that the right half of his field of vision is gone by stating that the left half remains (*i. e.*, that he has left hemiopia, or half vision); the term hemiopia is usually translated as "half blindness," and of late we have the choice of the more rational expression hemianopia or hemianopsia, which is coming into general use. Not so with the writer who wishes to state, in one rather learned looking word, that his patient cannot see at night, or that he cannot see so well in daylight as at dusk. He is not allowed the benefit of a translation "by contraries," or the choice of another word, but must, perforce, commit a verbal absurdity and write down "hemeralopia" or "nyctalopia."

Among modern authors the use of the former term to express night-blindness and of the latter to express day-blindness is almost universal. However inconvenient and confusing these terms may have been, we have consoled ourselves with the belief that their etymology was settled, and their use sanctioned by an antiquity extending back into the mythical ages of medicine. Elaborate articles, however, by Drs. Greenhill and Tweedy, in the last two numbers of *The Royal London Ophthalmic Hospital Reports*, show that the etymology of these words admits of an amount of learned philological discussion sufficient to bring doubt to the most conservative mind, and that the use of them in their present sense is a comparatively modern and probably accidental innovation.

These authors say that Oribasius, Palladius, Aëtius, Alexander Trallianus, Paulus Æginata, Joannes Actuarius, and a host of others use nyctalopia in the sense of night-blindness. Galen, who distinctly explains nyctalopia to mean night-blindness in one of his works, has been accused of taking the opposite side in two others, but the latter are apocryphal. In fact, up to the middle of the seventeenth century, Hippocrates only can be cited as using nyctalopia in the sense of night-sight. About this time, the Hippocratic works were more generally consulted, and the passage—"Those who see at night, whom we call nyctalopes," etc., determined the meaning of nyctalopia, while hemeralopia came into use to indicate the opposite kind of sight. It is shown, however, that the description of the etiology, history, and treatment of the disease, which follows this passage, corresponds to night-blindness rather than to day-blindness; and a revised edition of Hippocrates is produced in which the word οὐχ is restored, making the passage read: "Those who do *not* see at night," etc., and undermining the faith that has inspired many generations of medical authors.

Drs. Greenhill and Tweedy have done a great service to medical literature by determining, at the expense of much labor and learning, the true meaning of these words; but we fear that it will hardly be possible while they remain in use "to put an end to the confusion which has existed for considerably more than a thousand years." It would probably be easier to change the terms than to reverse their accepted meaning. As hemianopsia and hemiachromatopsia have definite and unmistakable meanings, might not some such words as nyctanopsia and hemeralanopsia be made equally useful?

AN IMPORTANT DECISION AS TO QUARANTINE FEES.

A DESPATCH dated New Orleans, January 2, states that a perpetual injunction restraining the Board of Health of that city from collecting quarantine fees, has been granted by the District Court on the application of the Morgan Railroad and Steamship Company. Judge Monroe, in delivering the opinion of the Court, concluded as follows: "It is remarkable, in view of the fact that the convention which adopted the Constitution of the United States distinctly determined, after the most elaborate and earnest discussion, that the States should not be allowed without the consent of Congress to levy duties on tonnage for any purpose whatever, that it should still be considered a matter of discussion as to whether such duties may not be imposed for the support of a police or quarantine established by a State for the protection of the health of its citizens. There is no reason for requiring that the quarantine service should be supported by those who are under no legal obligations to do so."

As the quarantine fees are the chief source of revenue of the New Orleans Board of Health, which receives no appropriations from the city or the State, this decision to a large extent deprives it of funds. The opposition of the New Orleans Board of Health to the National Board, and especially to the Ship Island Quarantine, has been no doubt influenced to a certain extent by the fear that its revenue from quarantine fees might be diminished if vessels were allowed to perform quarantine elsewhere than at its own station, but it may now be able to take a more impartial view of the matter. This decision, if sustained by the superior courts, before which it will no doubt be brought in some way, affects all ports of the United States where quarantine fees are charged, and it would seem as if under it one or two things must follow: *i. e.*, either the States or cities must appropriate the necessary funds for maintaining these quarantine inspections, or the general Government will be asked to assume the expense, and take charge of the matter.

Not having the full text of the decision before us,

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it does not seem worth while to comment further on the matter at present, but it is possible that this is the first step towards a really national system of quarantine.

THE INFLUENCE OF ARSENIC ON THE FORMATION OF SUGAR.

THIS subject has been studied by M. LE DR. LONGEVIALLE, both by physiological experimentation and by clinical observation. He has ascertained that the saccharine condition of the urine produced by puncture of the floor of the fourth ventricle, is very greatly diminished by the simultaneous administration of arsenic. He has further observed that in cases of diabetes the quantity of sugar is equally diminished by the administration of Fowler's solution. This medicine he administers in doses which, to our notions, are rather extreme, giving from ten to thirty drops daily, and increasing the quantity up to the tolerance of the stomach. The result is striking. Not only is the quantity of sugar greatly reduced, but the simultaneous waste of the nitrogeneous materials in the form of urea is also much diminished. With the diminution in the quantity of urea and of sugar, a notable decline in the quantity of the urine passed also takes place.

We are able to confirm these observations as regards the power of arsenic to check the formation of sugar, and the excessive production of urea, in cases of glycosuria. Although Longevialle has reduced to scientific expression the utility of arsenic, it must be admitted that it has long been known that arsenic is a useful remedy in diabetes. The clinical fact now receives scientific confirmation, but the fact has, nevertheless, long existed.

THE Pseudo-bacillus Tuberculosis of Schmidt, we feel, should be the term applied to the object of the studies of Dr. Schmidt, of New Orleans. That this object is a fat crystal derived from the fat so abundantly present in the sputum of tuberculosis, as well as in tubercle itself, there is every reason to believe. But that this is the object which has been called the bacillus of tuberculosis by Koch and others is not at all likely. No further proof of this ought to be required than the demonstration by Dr. J. Gibbons Hunt, at the College of Physicians of Philadelphia, last Monday night. That the pseudo-bacillus is a crystal, is proved by the fact that it *polarizes* under the microscope, while the true bacillus does not polarize. These different properties were shown side by side. Otherwise the two objects are similar, but Dr. Schmidt has mistaken the crystal for the real thing, which it closely resembles.

IT is important to publish widely the fact that in Illinois one Lambrecht has recently been detected in an attempt to personate Dr. Heinrich Andreas Lüders, a graduate from the University of Göttingen in May, 1866, who died in November, 1878. Lambrecht, who is a barber by trade, became in some way possessed of the diploma of the dead man, and attempted to register under it; and although, by reason of suspicious circumstances connected with the application, the required certificate was held back for some time by the Illinois State Board of Health, it was finally obtained in two years from the date of application, and he began to practice in Collinsville, Ill. The fraud was discovered by correspondence with the dean of the medical faculty of Göttingen, but not until the man had sacrificed a mother and infant in the attempted *rôle* of obstetrician. The scoundrel escaped, however, before he could be arrested, and may attempt the same game in some other State, where requirements of registration are less rigid, or do not exist at all.

Attempts at personating others through diplomas acquired by theft or otherwise are not infrequent, and suggest a rigid examination as to the identity of the individual with the name on the diploma. In this instance, the unscrupulousness of the man in forging letters of recommendation enabled him to deceive the Secretary of the Board. Had an affidavit before a justice of the peace, properly executed, been required in addition to the letters of recommendation, another obstacle to the success of the fraud would have been interposed.

THE new year has brought with it the usual number of alterations in our exchanges.

The New York Medical Journal has been converted from a monthly to a weekly, of 28 octavo double-columned pages, with the usual diversity of matter. The first number contains for its leading article Dr. W. B. Carpenter's initial lecture on Human Automatism, a full abstract of which was laid before our readers in our issue for December 2d. The journal remains under the editorial control of Dr. F. P. Foster.

The Sanitarian likewise becomes a weekly publication, and the first number consists of sixteen handsome double-columned quarto pages. It remains under the able editorial control of Dr. A. N. Bell, who is assisted by Dr. T. P. Corbally. The opening number contains papers by Drs. Cabell, Bowditch, Peters, and others.

The Medical Record, with the new year, appears in new type, a greatly improved dress, and a lengthened page, and it announces its intention of availing itself of all the resources of modern medical journalism.

The Detroit Clinic and *The Michigan Medical News* pass under the control of Mr. George S. Davis, and will be combined and published hereafter under the title of *The Medical Age*.

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THE cost to the Government of the star route trials has just been made public, and we learn that Mr. George Bliss has been paid up to December 1st $40,660.34, and the total sum paid to special counsel at that date was about $70,000. Judge Porter and Mr. Davidge each received for his services in the Guiteau trial $10,000, and Mr. Edwards Pierrepont was paid $3,099.25 in the past year for his services in the discontinued Tilden income-tax suit. These sums have been paid without eliciting a word of comment from the same Congress which, with considerable appearance of virtue as well as economy, denounced the extravagance of the sum it was proposed to pay the four surgeons who were in attendance upon President Garfield, and then created the Board of Audit which subsequently awarded them the total sum of $20,500. We commend these figures to the thoughtful consideration of the profession and the public.

SOCIETY PROCEEDINGS.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, January 3, 1883.

THE PRESIDENT, W. S. W. RUSCHENBERGER, M.D., IN THE CHAIR.

DR. JOHN B. ROBERTS read a paper on

HEART-PUNCTURE AND HEART-SUTURE AS THERAPEUTIC PROCEDURES.

It is more than probable that in a few years puncture of the heart-wall (cardicentesis), with direct abstraction of blood by aspiration, will be recognized as the best treatment in cases of greatly dilated or much distended right heart, with intense pulmonary engorgement; and that incision of the pericardium, with suture of the heart muscle, will be accepted as proper in cardiac wounds. Hence these latest novelties in cardiac surgery deserve the attention of the Fellows of the College.

That punctures of the heart are comparatively harmless has been well known to many for some years. In 1872, Roger, while performing pericardicentesis on a child with pericardial effusion, thrust the needle into the right ventricle and withdrew about 6¼ Troy ounces (200 grms.) of pure venous blood. The boy, who was aged five years, became pale, sweated, and had an imperceptible pulse. The withdrawal of the pericardial fluid, accomplished prior to the heart injury, was beneficial; and the cardiac puncture did no permanent mischief, for the patient recovered. Death occurred five months later from long existing dilatation and valvular disease of the heart (*Bull. de l'Académie de Médecine*, 1875, p 1276).

In Hulke's case (*Trans. Clinical Society of London*, viii. p. 169), a woman with pleuro-pneumonia was supposed to have large pericardial effusion, and a trocar was introduced through the fourth left intercostal space. Nothing escaped except a drachm of venous blood, after which the patient seemed relieved of dyspnœa. She died four weeks later from a complication of diseases, and the autopsy revealed cardiac dilatation and valvular changes.

I have said elsewhere (*Paracentesis of the Pericardium*, 8vo., Philadelphia, 1880), in commenting upon this case: "The abstraction of blood seemed to relieve the distended heart much better than phlebotomy would have done, as was evinced by the diminution of threatening symptoms and the decrease of the area of dulness."

Cloquet, Bouchut, Legros, and Onimus have also observed the apparent innocuousness of wounds of the heart made by capillary trocars. Steiner found, ten years or more ago, that electro-puncture needles could be quite safely introduced into either ventricle, provided they were at once withdrawn (*Med. Times and Gazette*, May, 1873, p. 492, from *Langenbeck's Archiv für klin. Chirurgie*).

It has been considered less safe to puncture the auricles; but the interesting paper of Dr. Benj. F. Westbrook, just published in the *Medical Record* for December 23, 1882, seems to show that our fears are as unfounded as were those of our predecessors in regard to ventricular puncture. It is, in truth, to call attention to his case of harmless *intentional* cardicentesis and to his researches in the surgical anatomy of the operation, that I have been led to refer to the corroborative evidence of the cases mentioned above.

I have with much satisfaction, as have many others, done venesection at the bend of the arm for the temporary relief of the distressing symptoms of dilated heart, and for the dyspnœa due to the pulmonary engorgement of acute pneumonia. If, however, a few *drachms* of blood drawn directly from the heart give the relief that could only be afforded by taking a similar number of *ounces* from the veins of the arm, it seems proper to adopt the former measure. The subsequent circulatory depression from anæmia would undoubtedly be less than after the latter operation.

It is manifestly necessary, however, to determine that cardicentesis is innocuous before it can take the place of venesection. The above-mentioned cases and Dr. Westbrook's experience tend to show that such is the fact.

Dr. Westbrook believes that the proper place to perform the operation is in the third costal interspace close to the *right* edge of the sternum. This situation enables the operator to tap the right auricle without injuring the right internal mammary vessels, and with little danger of striking the tricuspid valve. My own preference would be to perforate the ventricle of the right heart by introducing the needle through the fourth interspace, about one and a half or two inches to the *left* of the median line of the sternum. Dr. Westbrook's opinion, however, is entitled to more deference than mine, because he has studied the subject with special reference to cardicentesis, while my special investigations have been limited to the consideration of pericardicentesis.

Further experimentation in heart-puncture for the relief of cardiac distention and pulmonary engorgement is requisite, but it is probable that it will soon become a well-recognized surgical procedure in selected cases. Pericardicentesis has already taken that position, and there is no reason to believe that cardiac surgery will stop its march with the demonstration that the pericardium can be treated as the pleura.

In October, 1881, I read a paper before the Anatomical and Surgical Society of Brooklyn (*The Surgery of the Pericardium; Annals of Anatomy and Surgery*, December, 1881), in which I advised resection of the costal cartilage and incision of the pericardium for removal of foreign bodies in the pericardial sac; and at the same time said: "The time may possibly come when wounds of the heart itself will be treated by pericardial incision, to allow extraction of clots, and perhaps to suture the cardiac muscle."

It seems as if this time had now almost arrived, for Dr. Block has not only expressed a belief that death

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can be averted in many cases of heart-wounds by simple incision of the pericardium to allow escape or extraction of the clots which cause pressure and death, but has also undertaken to demonstrate by vivisectal experiments that suture of the heart is a simple operation and requires but three or four minutes (*Amer. Journal of the Med. Sciences*, January, 1883, p. 276; from *Journal de Méd. de Paris*, Oct. 28, 1882; from *Gaz. Méd. de Strassbourg*, Oct. 18, 1882). He finds that opening of the right and left ventricles, and entire compression of the heart for the application of sutures, can be supported by rabbits for several minutes. During suturing he seizes the apex of the heart and draws the organ forward until the traction prevents the escape of blood from the wound. Sutures are then introduced, or the orifice closed by ligation. Even if cardiac pulsation and the respiration stop during this mechanical interference with the heart's movement, death, he asserts, does not necessarily ensue.

These experiments are even more important than the researches spoken of in regard to heart-puncture. I regret that as yet I have not been able to consult Dr. Block's original memoir, but I hope at a future time to do so, and perhaps to be able to report some investigations of my own which I desire to make in the same direction.

The following Fellows were then elected

OFFICERS FOR THE ENSUING YEAR.

President.—Alfred Stillé, M.D.
Vice-President.—J. M. Da Costa, M.D.
Secretary.—R. A. Cleemann, M.D.
Treasurer.—Chas. Stewart Wurts, M.D.
Curator.—Thomas Hewson Bache, M.D.
Honorary Librarian.—James H. Hutchinson, M.D.
Recorder.—J. Ewing Mears, M.D.
Censors.—Drs. Lewis Rodman, Edward Hartshorne, William Goodell, and Samuel Lewis.
Councillors (to serve three years).—Drs. S. Weir Mitchell and W. S. Forbes.

The following resolution complimentary to

THE RETIRING PRESIDENT

was unanimously adopted.

"*Resolved*, Inasmuch as the term of the retiring President of the College, W. S. W. RUSCHENBERGER, M.D., has just been completed under the limit prescribed by the by laws, the Fellows of the College hereby respectfully and cordially congratulate him upon the very successful termination of his official services, and upon the long-continued, constant, and faithful administration which has distinguished those services not only in the Presidential Chair, but in his unremitting, wise, and watchful attention to the interests of the College.

"They take especial pleasure in expressing the grateful appreciation of the College, and in recording the fact that throughout his nearly four years of service as Vice-President, and his subsequent four years of service as President, Dr. Ruschenberger, while holding always the pleasantest relations with his Fellows of the College, has never been obliged by ill health or other cause to absent himself from his post, either at the meetings of the College or of the Council."

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, January 4, 1883.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D., IN THE CHAIR.

The result of the

ANNUAL ELECTION

of officers for 1883 was as follows:

President.—Fordyce Barker, M.D.
Vice-President.—H. P. Farnham, M.D.
Recording Secretary.—W. H. Katzenbach, M.D.
Corresponding Secretary.—J. G. Adams, M.D.
Treasurer.—William F. Cushman, M.D.
Trustee.—G. M. Smith, M.D.
Treasurer of Board of Trustees.—Charles Wright, M.D.
Mem. of Com. on Admission.—E. L. Partridge, M.D.
Mem. of Com. on Ethics.—H. E. Crampton.
Mem. of Com. on Education—J. C. Dalton, M.D,
Mem. of Com. on Library.—F. R. Sturgis, M.D.

The scientific work of the evening consisted in the reading of a paper by DR. FRANCKE H. BOSWORTH, on

TUMORS IN THE NASAL PASSAGES.

By nasal passages, he said, was meant the whole of the physiological air tract from the nostrils to the lower part of the soft palate.

The most frequent form of growth is the adenoid in the vault of the pharynx. It consists simply in a hypertrophy of the glands normally found in that region. It is a rather common belief that adenoid tumor in the vault of the pharynx is a rare and obscure disease, whereas Dr. Bosworth had found it a most common affection. The point from which he wrote was that this was one of the conditions which gave rise to so-called nasal catarrah. Nasal catarrh, however, was to him a meaningless term. There were a number of different conditions which gave rise to discharge from the nose. In a very large number of instances the discharge is the result of a definite morbid condition, the removal of which results in radical cure of the disease.

Among the common causes or sources of nasal catarrh were mentioned in passing rhinitis hypertrophica, deviated septum, adenoid growths in the vault of the pharynx, nasal polypus, presence of foreign bodies, syphilitic ulceration or necrosis, and strumous ulceration. These were diseases which generally presented to the physician for treatment as nasal catarrh.

During the last twelve months seventy-five cases of these growths (adenoid) had come under Dr. Bosworth's observation. Five were in patients under the age of ten, forty-three between ten and twenty, twenty-three between twenty and thirty, two between thirty and forty, one between forty and fifty, and one in a patient over fifty. Of these, forty nine were females and twenty-six males. These cases all presented for treatment of nasal catarrh. We thus find the largest proportion of these cases occurring in patients below the age of twenty. The deduction from this is that the disease is essentially one of childhood, and that with the development which occurs at puberty, these growths gradually disappear.

The existence of these growths has long been recognized, but was first accurately described by Luschka, from whom the disease received the name of Luschka's tonsil. Woakes, of London, describes adenoids as consisting of a papillomatous structure; Meyer, of Copenhagen, and Loewenberg, of Paris, described them as being glandular. The analogy between these and the faucial tonsil seems complete, both in an anatomical, physiological, pathological, and clinical point of view.

Symptoms.—The most prominent symptom to which these growths give rise is that of an abnormal secretion, which is composed of mucus or muco-pus. The morbid process giving rise to the hypertrophy does not destroy the secreting function of the glands, but rather increases it. The secretion makes its way out through the nostrils or down the throat.

Another symptom is a change in the voice. Their presence gives rise to what Meyer calls the dead voice, the nasal resonance being destroyed as in an ordinary cold, so that *M* and *N* become *Eb* and *Ed*. The fact of even a small adenoid growth in the vault of the

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pharynx upon a singing voice offers many points of interest. The conversational voice does not tax the full capacity of the larynx. A person with a considerable degree of laryngeal disorder will experience no special difficulty in an ordinary conversational use of the voice. Singing, however, taxes the very highest capacity of the larynx, and demands that not only the larynx, but the pharynx and the nasal passages shall be in a state of perfect health. In the lower or chest register a healthy larynx of course is essential, and notes in this register are taken with ease and clearness even when disease may exist in the nasal cavity. The vocal cords regulate the pitch tension of the voice, but the quality of the voice is governed or depends upon the nasal cavity, largely; so that while it is a matter of common observation among singers that it is the head register that first gives out, this illustrates what Dr. Bosworth has always urged, that the so-called catarrhal laryngitis is, in the majority of instances, a secondary affection and depending on the catarrhal disease of the nasal cavity. The laryngitis therefore becomes merely a symptom of the nasal disease. The method by which the singing voice becomes affected from the presence of adenoid growths in the vault of the pharynx is quite simple. The prominent function of the pharynx is that of a sounding-board, and in order that this sounding-board function shall be exercised, the pharynx must necessarily present a smooth, rounded, dome-like cavity against which the vocal waves may strike and be reflected. If, then, this region is the seat of an adenoid growth, the voice becomes muffled, and loses something of its proper resonance and quality. The singer becomes conscious of this loss of tone and unconsciously, perhaps, makes a renewed effort to overcome this obstacle. In doing so he ruptures some of the capillaries in the larynx or muscular fibres, thus bringing on secondarily a laryngitis. A strained voice is the result.

Impairment of hearing is not an infrequent accompaniment of adenoid disease in the vault of the pharynx. It is a common belief that this symptom is due to an extension of catarrhal disease into the Eustachian tubes. Dr. Bosworth was disposed to regard this as a very infrequent occurrence. In making an examination by inspection of the orifices of the Eustachian tubes, it is exceedingly rare to find any evidence of catarrhal inflammation in them.

Dr. Bosworth also said that it was commonly believed that the ear symptoms were due to pressure upon the Eustachian orifices. Adenoid tumors are soft, pulpy masses, having very little resistance, and, as the Eustachian orifices are composed of hard, dense, cartilaginous, or horny tissue, they could not likely be affected by pressure of soft adenoids. The real explanation of impairment of hearing, urged by Dr. Bosworth, was that it was due to interference with the renewal of air in the middle ear. The constant and ceaseless impulse of vocal waves upon the tympanum necessarily acts to rarefy the air in the middle chamber. To counter-balance this, we have the movement of the faucial muscles. The presence of an adenoid growth very markedly interferes with the free play of the levator palati muscles, and, therefore, interferes with the renewal of air function. The growth, of course, does not oppose any obstacle to the levator palati muscle itself, but the elevation of the palate. Moreover, any cause which interferes with free nasal respiration, acts to produce a certain amount of rarefaction of air in the pharyngeal vault. It is thus that nasal stenosis, to which the presence of an adenoid growth gives rise, acts still further to rarefy the air in the middle chamber, thus causing impairment of hearing.

Recurring attacks of earache were present in a certain number of cases, and in two cases there were attacks of otitis medii. In one case, tinnitus aurium existed, with impairment of hearing, which was markedly relieved, though not cured, by the removal of the growth.

Nasal stenosis is a prominent symptom in the presence of an adenoid tumor. It is due to the mechanical interference with the to-and-fro flow of currents of air. It is a very noticeable fact in these cases that under the influence of damp weather these growths become swollen and turgid to such a degree that they are very markedly larger on inspection at one time than at another. The point examined will sometimes appear very small; at other times puffed up. In this feature, the disease presents some of the characteristics of nasal polypi.

The disease is purely a local one, the inflammatory affection involving these glands always manifesting itself in a hypertrophy, and never in an atrophy. The morbid process confines itself to these glands.

In four of Dr. Bosworth's cases, disease occurred in connection with atrophic rhinitis, but in by far the larger proportion of cases it occurred in connection with rhinitis hypertrophica. In about one-half of the cases it occurred independently of any other morbid process.

Diagnosis.—The diagnosis is made by means of a rhinoscopic examination. Loewenberg and Meyer direct that digital exploration should be made in all cases. This, Dr. Bosworth did not consider to be necessary. It was only accomplished with discomfort to the patient, and unnecessarily excites more or less terror and apprehension on the part of the child. A better and clearer conception of the size and position of the tumor can be obtained by means of the rhinoscope. To make an examination, sunlight should be used in all cases, as the ordinary gas jet is not sufficient to thoroughly illuminate the parts. That there is any difficulty in making a rhinoscopic examination of children is an entire mistake. The confidence of the child is easily gained, and with a little adeptness of manipulation and patience, a satisfactory inspection can be obtained. Dr. Bosworth recalled no single instance where he had not been able to make this examination in children.

Treatment.—The treatment consists in the removal of the growths. The question arises whether an operation is demanded, in view of the fact that they sometimes disappear with the development that occurs at puberty. Dr. Bosworth claimed that their presence always gave rise to symptoms sufficiently prominent to demand their removal without regard to this feature. Not only should the existing symptoms be relieved before removal, but the threatened dangers of disorder lower down as a result of their presence. The presence of this growth undoubtedly gave rise to a tendency to weak throats, and bronchial troubles as the result of the habitual mouth breathing which they induce.

Various devices have been used for extirpating these tumors. Meyer, of Copenhagen, uses a ring knife. This consists simply of a ring with the cutting edge on the inside, mounted on a straight rod. The instrument is passed through the nose, and manipulated by means of the finger passed in the mouth behind the palate, and the growth shaved off. He follows this operation by passing a long curved instrument, having a rasp on its convex surface, by means of which instrument passed into the mouth he rasps the base of the tumor. Finally, he cauterizes the surface. Meyer unquestionably does his work very thoroughly as his record shows. He has operated upon between three and four hundred cases.

The question arises, cannot this work be done by much simpler means? Woakes, of London, Cohen, of Philadelphia, and others recommend a pair of curved

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forceps with a cutting bite, which is passed behind the palate, and the growth seized and torn away. This seems to be a rude and harsh procedure. Loewenberg, of Paris, Michel, and Voltalini use the galvano-cautery. There are two methods by which this device may be used: Either by the heated wire severing the mass, or by destroying it by the flat electrode. The first method is not feasible. As a directly destructive agent, Dr. Bosworth believes the galvano-cautery to be immensely over-estimated. It is an expensive and ponderous instrument, and always getting out of order; and, moreover, for the purposes of destruction it does not accomplish what has been claimed for it. If a cold electrode is placed upon the growth, and the current closed the loss of heat is so great that it is impossible to develop even a dull red heat. The destruction of tissue is therefore limited. If heat be developed in the electrode before entering, it is almost impossible to pass it without burning healthy tissue. MacKenzie recommends the use of the curette. This instrument Dr. Bosworth formerly used, but found it difficult to remove any but simple growths with it.

The instrument which the author of the paper made use of was an adaptation of Jarvis's snare. In his hands it had answered a most admirable purpose in the removal of these growths. The distal end of the tube is bent to a quadrant of a circle, with the radius of one and a quarter inches. The instrument is fitted with a loop of No. 5 piano wire, of a size which it is judged will embrace the growth. The loop is now bent forward to a right angle with the distal orifice of the instrument. The wire is then drawn out about one-eighth of an inch, and the whole of the loop is now bent backward toward the hand. The wire now has two kinks in it. The instrument with the loop in this position is readily passed behind the palate and to the vault of the pharynx with the extremity of the tube lying immediately behind the tumor. As the screen at the proximal end of the instrument is slowly turned, the loop is made to swing up and embrace the growth, which is slowly severed. The rigidity and firmness of the steel wire render this procedure an exceedingly simple matter. By this simple device even a broad sessile growth can readily be removed. The operation is attended with but little pain and trifling hemorrhage, and is not difficult to perform. The growth is either drawn out with the instrument or blown into a handkerchief through the nose. Dr. Bosworth has never had the slightest inconvenience from these growths dropping into the air passages. He has, however, occasionally lost a specimen by its being swallowed. No anæsthetic is required. The operation of course necessitates a certain amount of faucial control on the part of the patient, as the loop cannot be passed unless the palate is entirely relaxed. Occasionally, Dr. Bosworth has been compelled to operate through the nose in young children on account of an irritable throat. In these cases an anæsthetic has been given, and the operation performed with the ordinary straight Jarvis's snare. The method by which this has been done is as follows: The snare is fitted with steel wire as before, the loop being of proper size to embrace the growth. The loop is then bent downward, and to a right angle with the orifice of the tube. Having done this, it is drawn into the tube until sufficiently small to pass readily through the nares. It is then passed in a vertical position until it reaches the pharynx, where it is turned in such a manner that when the wire is pulled out through the tube, the kink which has been given it, will turn the loop downward. When in this position the end of the instrument is pressed firmly against the pharynx, and the loop drawn home by means of the screw at the proximal end of the tube. The same procedure is repeated in each nostril. Complete anæsthesia is not necessary, as the operation is completed in from one to two minutes, the child being immediately aroused and directed to blow its nose.

Nasal Polypus.—The next class of nasal tumors to which Dr. Bosworth called attention was nasal polypi. This disease has been recognized since the days of Hippocrates, and is treated of in all text-books to the present day. The morbid condition consists of the presence in one or both of the nasal cavities of one or more soft gelatinous bodies which block up the passages, and give rise to more or less profuse secretion or discharge.

Properly speaking, the term polypus means pedunculated tumor. As a clinical fact, the only pedunculated tumors met with in the nose are nasal polypi. In structure these tumors are pure myxomata. A proper classification would demand that these tumors be recognized as such. Fibromata never become pedunculated. They are always sessile growths. In current literature a fibroma of the nasal pharynx is usually spoken of as a naso-pharyngeal polypus. During the last year there were treated at Dr. Bosworth's clinic at Bellevue Hospital 1641 cases of throat and nose affections. Of these, there were 19 cases of nasal polypus. During the same time he saw and operated upon 16 cases in private practice. Of these 35 cases, 2 were under 20 years of age, namely, 11 and 15 years; between 20 and 30 years of age there were 9 cases; between 40 and 50, 12 cases; between 50 and 60, 6; between 60 and 70, 4 cases; 20 were males, 15 females. In a large number of cases the disease occurs in both nostrils. In those cases in which they are found only in one nostril the tumors are few in number and small in size. This fact would argue that the disease commences in one nostril and subsequently develops in the other. They spring from the under surface of the middle turbinated bone in a large proportion of the cases. Dr. Bosworth recalled but two cases in which they sprang from the septum. They are pear-shaped bodies attached by a narrow pedicle. Their shape is probably due to their soft consistency. Under the influence of gravity and the to-and-fro movements of inspired air they are drawn out and hang in the cavity. They rarely assume much size, simply from the fact that they have no room for development in the narrow nasal passages. Occasionally they develop near the posterior nares and drop into the pharynx, where they have more abundant room for growth, and therefore attain a larger size. Dr. Bosworth showed two polypi nearly of the size of hens' eggs, which were removed by operating through the nares. We were generally taught that this disease was the result of nasal catarrh. Dr. Bosworth thought that nasal polypus is a disease by itself, having no special connection with nasal catarrh or chronic rhinitis. In a majority of his cases, after the removal of the polypi, the nasal mucous membrane was found healthy. In a certain proportion of cases there was chronic hypertrophic rhinitis. In four cases there was atrophic rhinitis, which would seem to argue that there is no connection between these affections and hypertrophic catarrh. In two instances the writer had removed polypi from the borders of syphilitic ulcers in the nose. This would indicate no connection between syphilis and nasal polypi, the growths being simply the result of local morbid changes.

Ordinary symptoms were briefly referred to. They consist in a watery discharge, the hydroscopic character of the tumors, a nasal stenosis, etc. Sneezing was referred to as a prominent symptom of nasal polypus, and one whose importance is usually underestimated. The irritability of the nasal mucous membrane in chronic rhinitis is impaired, and sneezing is not a symptom of ordinary chronic nasal catarrh. In

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the early stages of nasal polypus, repeated and violent attacks of sneezing are very common. This symptom is always suggestive of the disease, and when it exists without apparent cause, the nasal cavity should be explored.

In three cases asthma was present, and depended upon the existence of these growths. The asthma presented all the characteristics of ordinary spasmodic asthma, the physical signs, together with nocturnal exacerbations, being present. In two cases the asthma was entirely cured by the removal of the polypi without the administration of remedies. In one case in which it had existed for two years, the asthma was only relieved by the administration of iodide of potassium for three months after the polypi were removed. This reflex symptom of nasal polypus (asthma) was first noticed by Voltalini, in 1871. Since then additional testimony has been adduced by Daly, Frankenkel, Rumbold, Spencer, Todd, Porter, and Holden.

Treatment.—The earliest treatment recommended for the removal of these growths was that by Hippocrates. This consisted in passing a string through the nares, to the end of which a large piece of sponge was tied, which was then drawn back through the nasal passage, bringing out with it some of the growths. It is a strange fact that this procedure is still recommended in some books.

Injections with acetic acid, tincture of iodine, persulphate of iron, and corrosive sublimate have been recommended. The result of the use of these injections into the growth is its necrosis. The polyp sloughs away after from three to five days, during which time the patient suffers from offensive, watery, and fetid discharge from the head. It is impossible to inject more than one or two polypi at a time. Hence, for the eradication of all the growths, a long course of treatment is necessary, during which time the patient is practically suffering from an offensive form of ozæna. All works on general surgery recommend the use of forceps for the removal of these tumors. This method is perhaps the one most universally resorted to. We are directed to pass the forceps in and seize the pedicle of the polyp, and drag it out. Dr. Bosworth said that he had never seen a pedicle of the polypus until after it was removed. Hence this procedure is impossible by inspection. If it is meant to pass the forceps in and feel for the pedicle, the result is that a harsh instrument is passed into an exceedingly sensitive cavity, and made to grope about, until something is seized upon, whether it be healthy or diseased tissue, and is dragged forth. Healthy parts, in all cases, are bruised and mutilated. Violent hemorrhage is the result of the first introduction of the forceps, and all subsequent procedures are entirely in the dark. It is one of the most unsurgical proceedings that Dr. Bosworth knew of. Moreover, all the tumors cannot be removed by the forceps. We are, therefore, directed to remove a portion of the turbinated bone. The healthy mucous membrane upon the turbinated bone has a certain function to perform in the economy, and its removal is unjustifiable without sufficient cause.

The galvano-cautery recommended by Middledorphf is probably efficient. Dr. Bosworth's objection to this was that it was a bungling instrument. Moreover, the use of a heated wire in the nasal cavity is liable to do a great deal of injury to healthy tissue. The introduction, by Hilton, of the snare was the first thoroughly surgical method of removing these growths. The snare was mounted with the soft wire, which was passed around the growth, tightened, and the polyp evulsed. This procedure was liable to leave a portion of the polyp tissue in the nose.

Jarvis's snare écraseur furnishes us with an instrument which leaves nothing to be desired. The steel-wire loop with which it is provided being firm and resisting, can be carried in any direction in the nasal cavity, and easily manipulated so as to embrace the smallest growth. This difference should be noted between the action of the snare and the action of the écraseur. In the snare the growth is seized and evulsed, in the écraseur the growth is embraced and severed by a slow process of écrasement. With this instrument, when the operation is done deftly, a long shred of fibrous tissue is easily dragged out from the healthy mucous membrane. Dr. Bosworth was not a believer in roots, but if there was a root of a polypus this is the root, and another polypus does not develop at this spot. In the specimen shown, this fibrous shred was easily recognizable. The only objection to the ordinary snare is that in deeply seated growths the hand of the operator obscures inspection of the nasal cavity. To overcome this, Dr. Bosworth made a combination of Jarvis's écraseur and wire snare.

As to the recurrence of these growths Dr. Bosworth expressed the opinion, that if they were thoroughly relieved they would not occur. The operation, it should be stated, is done with but little pain and no hemorrhage, and can be continued from day to day until all the growths are removed. He had not found it necessary to apply a cautery to the base in order to prevent the recurrence of the growths. They were to be treated as you would weed a garden.

DR. LEFFERTS was called upon to open the discussion. In doing so, he said that there were many points in Dr. Bosworth's excellent paper that needed no discussion. On the other hand, there were some statements made by Dr. Bosworth which he thought it would be well to consider. First among these was that adenoid tumors of the naso-pharynx were generally believed by the profession to be rare. Dr. Lefferts declared that any one who had read the journals could not help having noticed this subject treated of almost *ad nauseam*. The speaker, however, had not found these adenoid vegetations so comparatively common as the statements of Dr. Bosworth and the numerous pathological specimens presented by him this evening would seem to indicate.

The fact that a large number of these growths were exceedingly small and could hardly be considered as an abnormality, should not be overlooked. The author of the paper had not laid sufficient stress upon this point. The question was asked, is it always necessary to remove these growths? Dr. Lefferts believed not. His reasons were that at a certain age, namely, that of puberty, these growths disappear by a gradual process of atrophy. Hence, he thought it was desirable not to operate in any of these cases unless the symptoms were of an aggravated character. He agreed that there were cases causing a certain amount of interference with a child's voice, and giving rise to other disagreeable symptoms which required attention. The majority of children that were brought to him having these growths, were brought on account of having nasal catarrh. There was usually found a condition of hyper-secretion. In these cases it was his practice not to operate, but to wait until the time had passed for the atrophy of these tissues to take place. Hence, he would not advocate their treatment by removal.

As to treatment, Dr. Bosworth had run over the various methods in use, and summed up by recommending the method of removal by means of Jarvis's snare, which instrument, the speaker said, had figured largely in the author's writings of late. This instrument answers the purposes of removal very well, but it has not met with general approval on the part of the profession. The speaker stated that it was not generally used by those engaged in this special practice. While in Europe, Dr. Leffert's attention had been called

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to a new form of forceps which answered every purpose, and did not require for their use so much skill as Dr. Jarvis's snare. These forceps had been used by him extensively, and with gratifying results.

Two forms of nasal tumor, not mentioned by the author of the paper, were alluded to. First, that of cystic tumors of the nasal passages. This was a rare affection, but was worthy of notice, being of diagnostic importance. The speaker had met with but one case, and knew of but one in literature. Cystic tumors resembled exactly in their appearance gelatinous polypi. They differ from the latter in that in operating after seizing with the forceps, they are ruptured, and their contents escape. Under these circumstances, ordinary operators would continue to grasp for growths which did not exist, and hence might do harm. Dr. Lefferts stated that he himself had committed this error. The second form of nasal tumor sufficiently common to justify its mention was that of papilloma. These grew far forward. In several cases the speaker had seen them give rise to persistent attacks of epistaxis. It was a simple matter to put such a patient in a suitable light, and make an examination of the growth, upon detecting which, it could be readily removed by means of the forceps or scissors. He did not agree with Dr. Bosworth's statement, that interference with the singing voice was usually first noticed in the upper register. His experience had been that the middle register was the first to be affected. This, however, was a subject the discussion of which the limits of his remarks would not permit him to enter into.

DR. BRANDEIS wished to take issue with the author's statement regarding the use of the galvano-cautery. He had used it for a number of years past, and had thus far not met with any of the evil consequences described by authors. He had never had any affections of the middle ear resulting from its use, nor sufficiently extensive cicatrices to cause malposition of normal parts. The offensive discharge which was incidental to this method of operating was of only temporary duration, and of trivial annoyance. He had removed tumors by this means through both the nasal and pharyngeal cavities. The removal of growths by means of the galvano-caustic loop was considered good practice for two reasons: it not only removed the growth at its base, but, by virtue of its intense heat, reduced the probability of a recurrence of the trouble to a minimum.

DR. LINCOLN thought there were many growths in the nasal passages, especially anteriorly, the evil results of which might be far-reaching. In regard to those in the posterior region, the necessity for operation depended entirely upon whether the consequences of their continuance were sufficiently great to impair the health or produce great discomfort. The discomfort would depend upon the size of the tumor, and the discharge in consequence thereof. A case of reflex asthenia, due to one of these small growths, was cited. The growth was so insignificant that its removal was only finally resorted to as a matter of experiment, and the result which followed its abolition was an entire relief from asthmatic symptoms.

Another evil effect which might arise from the presence of these growths was that of malformation of the chest produced in childhood. The speaker had seen a number of instances where no other explanation by which the production of this deformity could be accounted for than that it was due to faulty respiration, incidental to the presence of growths in the nasal passages. Children thus afflicted would have short breathing, and breathe with their mouths open, causing a sucking movement, and consequently an insufficient expansion of the chest.

He believed that the author of the paper intended to infer that no method other than the use of the snare afforded satisfactory results. Upon this point he must take issue with Dr. Bosworth. He had published a series of cases some years since, in which caustics were used, and where the results were eminently satisfactory. The Vienna paste was a substance which could be applied by any one, and was most certainly a successful method of removing growths from the nasal passages. He had often applied it to the tonsils in cases of their enlargement, and with satisfactory results, reducing the tonsils to their normal size in a short time.

Jarvis's snare was certainly a most excellent and serviceable instrument. For certain cases, he believed that there was nothing else that could be devised to take its place. It was the most useful instrument in his office. He, however, recognized that in many cases there were other means of obtaining satisfactory results. The tonsils, as a rule, become atrophied at puberty. In cases of enlarged tonsils, he applied boracic acid, and with the result of diminishing the size of the growth.

DR. ROBINSON remarked that most of the points which had occurred to him during the reading of the paper had been touched upon by those who had preceded him in its discussion. In regard to Jarvis's snare and the warm advocacy of its use by Dr. Bosworth, the fact remained that it was not the only instrument we could use for the removal of these growths. It was, however, undoubtedly the best instrument which could be selected for that purpose when the growths were of any considerable size. Of course, when they were small, flat, and sessile—and such cases were very numerous—they could be removed by the galvano-cautery, or scarification with Myer's knife, or a sharp curette. But for the large growth, as he had already stated, there was no method that could at all compare with Jarvis's. In two cases, where other methods had failed entirely, he had used the snare and readily removed the growth without great pain or much trouble.

There was one point which he thought was not sufficiently emphasized by the author of the paper, and that was that when these adenoid growths were of considerable size, a certain amount of air was sucked out of the Eustachian tubes during each act of deglutition. He believed that the extension of the inflammatory action up the tubes was the explanation of imperfect hearing following the development of these growths. It was a curious fact, however, that in some instances the hearing was notably affected, while in others it remained good, notwithstanding the existence of growths of considerable size.

DR. JARVIS being called upon by the Chair, it was learned that he was absent in consequence of sickness.

DR. BOSWORTH, in closing the discussion, commented upon the question as to whether it was desirable to operate for the removal of these growths in children under the age of puberty. He stated that these children were brought to us in a morbid condition. They were brought on account of the existence of permanent and annoying symptoms, from which they wished to be relieved. It seemed to him that it was our duty to relieve these symptoms if we could. There was an additional reason for such a practice, as he had already stated. These growths naturally have a tendency to involve the parts below, giving rise to throat and bronchial troubles. Furthermore, we were not at all sure, that they would disappear upon the patient reaching the age of puberty, inasmuch as one of the pathological specimens presented this evening was from a patient sixty years of age.

As to the question of the forceps or the snare, he would say that if one or two of the growths which he had presented this evening were carefully inspected, it

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would be seen that they bear the marks of the forceps. In fact, one of the growths which he presented had been chopped at with the forceps for three months by an expert, and had afterwards been removed by him by means of the snare. He had never seen a pair of forceps that could be made to reach the whole of one of these adenoid tumors. As to extension of catarrhal disease through the Eustachian tube, he could say that he had very rarely seen any evidence of catarrhal inflammation at the Eustachian orifices when inspecting them. His explanation of the interference of hearing due to the presence of these growths was not that they pressed upon the orifice of the Eustachian tubes and thus occluded them, but that, when of considerable size, they interfered with the action of the levator palati muscles which were concerned with the entrance of air into the middle ear.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, January 2, 1883.

THE PRESIDENT, E. C. SPITZKA, M.D., IN THE CHAIR.

PRESENTATION OF A SPECIMEN OF OCCLUSION OF BASILAR ARTERY.

DR. LEONARD WEBER first read the history of a patient who had died in consequence of occlusion of the basilar artery, which was, in brief, as follows:

The patient, a male, 42 years of age, and a merchant by occupation, had been, for a few weeks previous to his visit to Dr. Weber, feeling unnecessarily tired and weak. His appetite was diminished, he had occasional nausea, irregular action of the bowels, and frequent headaches of the nature of painful pressure on the top of the head; also, disturbed sleep. He came under observation November 9, 1878. On Nov. 21 he had not improved. He complained of vertigo and of a constant roaring noise in both his ears, and of increased pressure on the top of his head. In walking, he now dragged the right leg a little. The patient looking quite ill, a carriage was ordered for him, and he was taken home. Shortly afterward, he was found with paresis of the right upper and lower extremities, also right half of face and tongue. Eyesight was normal, as far as ordinary tests were concerned. He complained of vertigo, sickness, and increased pressure on the top of the head; no pain elsewhere. The patient gave a history of having had a primary sore on his penis twelve years previous, which, however, was not indurated, and was not followed by any secondary symptoms. He also gave a history of having subsequently had an ulcer upon his heel, which came without apparent cause, and remained open for a long time. Finally, under the influence of iodide of potassium, this ulcer healed. From these facts, it was supposed that his trouble now was probably due to syphilis, there being no other evidence of other organs being diseased which might cause embolism or cerebral apoplexy. At 2 P.M., Nov. 22, the patient was taken with a terrible fit of general convulsions, lasting several minutes. After the first attack the patient lost consciousness. These attacks were repeated every half hour, and the patient died in deep coma at 10.30 A.M.

A post-mortem examination twenty-four hours afterwards revealed no evidence of disease of the larger arterial branches until coming in contact with the basilar artery. This vessel was found completely filled with a firm clot extending from the place of union of the two vertebrals, about half an inch upwards. Upon making a longitudinal section, a small dense tumor growing from the inside of the walls of the right vertebral was cut through just at the junction with its fellow, and almost completely obstructing the lumen of the basilar artery at its very commencement. A microscopic examination revealed the fact that the tumor was composed of small cells and connective tissue, corresponding in its character to similar gummatous affections of cerebral vessels as described by several authors.

DR. WILLIAM A. HAMMOND then read a paper on

ALLOCHIRIA, ITS NATURE AND SEAT.

The case reported was one which Dr. Hammond saw in November in conjunction with Dr. L. A. Stimson. It was asserted that the patient had received a serious injury to the spine. In a day or two after the accident, symptoms indicating spinal trouble began to develop. Some time afterwards a physician was consulted, who diagnosticated Pott's disease. A plaster jacket was applied. Several months elapsed, during which he was at times better, and at other times worse. Upon the whole, there was no decided improvement. The fact that he had brought an action for heavy damages against the city was the immediate cause of Dr. Hammond's examination. Dr. Hammond was of the opinion that the patient had never suffered from an injury of the vertebral column or of subsequent Pott's disease. This opinion was concurred in by Drs. L. A. Stimson, Hamilton, and Clymer. The patient complained however of pain throughout the whole spine, and of excessive nervous irritability. He had had contractions of the muscles of the lower extremities, and on causing him to walk about the room, it was evident that his limbs were stiff and that he lifted his feet with difficulty. His gait was not that of locomotor ataxia. Up to this time, no experiments had been made with a view of testing the sensibility of the lower extremities. These were now denuded of their clothing, and the patient was told to shut his eyes. The touch of a finger, the scratch of a pin, or a deep puncture with the blade of a penknife, was equally unfelt in the right leg. On making the like experiments on the left leg, he complained of pain when the knife was stuck into it and automatically carried his hand to the place where he supposed the puncture had been made, but instead of touching the spot injured, he indicated the exactly corresponding situation on the other leg. Repeated experiments led to like results. The conclusion was reached, that the patient was suffering from antero-lateral or lateral sclerosis, with the implication of the posterior horns of gray matter, and probably of the membranes of the cord to a slight extent.

It was with reference to this cross sensibility which the patient exhibited that Dr. Hammond's paper was concerned. To this condition the name of allochiria has been given by Prof. Obersteiner, of Vienna, who was the first, so far as Dr. Hammond knew, to call especial attention to the phenomenon, though it had been incidentally alluded to by Leyden and Ferrier. In a post-mortem examination of one of Obersteiner's cases it was found that there had been inflammation of the first, second, and third lumbar vertebræ, meningitis, and extensive transverse inflammation of the cord. The posterior columns for a considerable distance above the seat of the injury were in a state of sclerosis, and the posterior horns of gray matter in portions of the cervical enlargement were transversely divided by a peculiar, structural, transparent mass intensely colored by carmine, and very similar to the mass which is found around the larger vessels in inflammatory processes in the cord.

Dr. Hammond was of the opinion that the lesion above described of the posterior horns of gray matter was that to which the phenomenon of allocheria is to be ascribed. Obersteiner and Ferrier had declared their inability to give an explanation of the mechanism of

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the production of allochiria. Preparatory to an explanation of this symptom, Dr. Hammond referred to the fact that the posterior tract of gray matter was probably the only channel by which sensory impressions reached the brain, the posterior columns having in their normal condition nothing whatever to do with the transmission of such impressions. But, before reaching the posterior horns, the posterior roots of the spinal nerves pass through the columns of Burdach, and when these are the seat of inflammation, as they are in locomotor ataxia, disturbances of sensibility, such as hyperæsthesia, paræsthesia, and anæsthesia are produced in the parts below by the pressure exerted upon the roots. It was quite certain that there is an almost complete decussation of the sensory fibres within the gray matter. We were taught these facts not only by experimental physiology, but also by the instruction we derive from the study of cases of disease or injury of the cord. A diagrammatic representation of a section of the cord was then displayed and an explanation given of the method by which the peculiar symptoms alluded to arose. Dr. Hammond stated that in those cases of disease or injury of the posterior horns of gray matter, whether they be primarily involved or secondarily, as in locomotor ataxia, in which allochiria exists, either the lesion must be unilateral, or, if both horns are involved, the lesions must be at different levels.

In the only case of allochiria in which a post-mortem examination has been made, and which has been referred to above, Obersteiner found, among other abnormal conditions, disease of both posterior horns of gray matter. The morbid process was not continuous, as it is stated that it was not perceived in all the sections. It was situated at the narrowest part of the posterior horns, being so placed as to interrupt the decussation of all the nerve fibres, and hence to cause a transmission of sensory impressions upward on the same side in which they entered—a condition which, equally with that which Dr. Hammond described, would give rise to allochiria.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday Evening, Dec. 14, 1882.

THE PRESIDENT, DR. JAMES TYSON, IN THE CHAIR.

A CASE OF MITRAL OBSTRUCTION, WITH SEQUENTIAL LESIONS.

DR. E. T. BRUEN presented this specimen, in which the auriculo-ventricular opening of the left heart is nearly occluded by an epiglottic-shaped enlargement of one of the leaflets of the mitral valve. The valve is very much thickened, and the focus of a considerable calcareous deposit. The orifice during life permitted a reflux of blood from the ventricle into the auricle. The left auricle is dilated and hypertrophied, so that its cavity is about twice as large as normal. The right ventricle is very much dilated, the walls of this cavity are less than half the normal thickness, and the ventricle must have had during life twice its physiological capacity. The tricuspid valves were insufficient. The considerable cardiac enlargement occasioned an increase of the area of dulness on the level of the third and fourth ribs, and to the right of the median line of the sternum. In children, the heart with similar enlargement encroaches upon the left pleural cavity to such an extent that the physiological inflation of the left lung cannot occur. Bronchial breathing is produced, audible posteriorly, while anteriorly, below the second interspace, no respiratory murmur is audible. In these cases when the complication of bronchitis occurs, the physical signs suggest a pleural effusion. Enlargement of the right ventricle, both in children and adults, causes a pronounced impulse at the epigastrium and occasions serious pain and inconvenience. The murmur heard during life, in the case from which this specimen was taken, indicated this lesion, both presystolic and systolic murmurs being audible. The second sound at the pulmonary artery cartilage was also much accentuated, owing to the repletion of that vessel with blood. The first sound over the right ventricle was very clear and distinct, as is common in these cases, but the first sound at the apex was obscured by the murmur. The patient from whose body these specimens were removed was a woman, aged 46 years, who had been subject to heart disease since 20. The immediate cause of death was pulmonary repletion with blood, which induced right-heart failure.

PERICARDIAL EFFUSION AND ADHESION OF THE PERICARDIUM TO THE APEX OF THE HEART MISTAKEN FOR HEART RUPTURE.

DR. J. T. ESKRIDGE presented the specimens, and said that in this case the physician making the autopsy actually considered the specimen to be one of heart rupture. The patient was an athletic young man, and had been perfectly well until a few days before he sought medical advice. He was under treatment for only twenty-four hours, suffering from cardiac pain and great prostration. He died suddenly and unexpectedly, when no one was near him. The attending physician, who made the post-mortem examination with no professional assistance, reported effusion in both pleural cavities, the pericardium distended with thin, non-coagulated blood, and a rupture of the left ventricle. Dr. Eskridge said that a careful examination of the heart, pericardium, adjacent glands, and portions of the larger bronchi, showed marked evidences of pericarditis and pleuro-pericarditis. The pericardium was adherent to the lower third of the heart, but the adhesions were recent and easily severed. The heart was not much enlarged, its valves were nearly normal, and its muscle firm. No rupture was found. He believed that the case was one of pleurisy and pericarditis with effusion, death taking place suddenly from mechanical interference with the heart and lungs. He thought that the most plausible explanation of the doctor's mistake in calling it a case of cardiac rupture was that, when severing the blood-vessels around the heart, blood flowed into the pericardium and mingled with the serous effusion. He did not think that a firm, non-fatty heart could rupture itself by its own contractions. If the pericardium was filled with effusion in that instance, it taught a lesson of far more practical value than a case of cardiac rupture under similar circumstances would. It was evident, if the pericardium should be attached to the apex of the heart in a case of pericardial effusion in which operative interference was determined upon to free the heart's action, a thrust of the trocar into the pericardium would greatly endanger the ventricular walls.

SEVERAL SPECIMENS OF EYES ENUCLEATED ON ACCOUNT OF SYMPATHETIC IRRITATION IN THE OTHER EYE, OR FROM FEAR OF ITS DEVELOPING,

were exhibited by DR. LITTLE, who said that sympathetic irritation and sympathetic ophthalmia are the only two forms of the sympathetic diseases of the eye that afford an opportunity for pathological study, and in these cases only the enucleated eye can be investigated. Just what are the conditions in the remaining eye must remain uninvestigated. If full restoration of the function of vision is attained, great satisfaction only is felt. Less and less opportunity is being afforded of studying the condition of an eye enucleated for sympathetic ophthalmia in the other eye, since

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merely the sympathetic irritation of the sound eye impels the surgeon to enucleate the primarily affected eye before true sympathetic ophthalmia asserts itself. The portion of the eyeball which renders liable the development of this affection when diseased is so well known that not even sympathetic irritation should be allowed to develop, as an early enucleation will prevent it. Enucleation of the primarily diseased eye when true sympathetic ophthalmia is present in the other eye is now questionable, as after all inflammation has subsided under treatment, surgical procedures upon the primarily affected eye may afford the best results for visual purposes. A recent experience will bear out this statement, the patient refusing the advice of a former medical attendant, and also my own, after two months suddenly developed sympathetic ophthalmia of the sound eye. Enucleation was then too late; now both eyes are becoming quiet, and I am in doubt which in the end will be the more available eye. A physician recently under treatment for a severely traumatized eye has refused the advice of two surgeons and is now doing well, but the danger of a sympathetically irritated eye is constantly before him. The pathological investigation is, then, mainly restricted to eyes enucleated before or after sympathetic irritation has developed in the other eye, as results show that under such circumstances full protection to the remaining eye is afforded. Investigation of eyes enucleated when sympathetic ophthalmia of the other eye is present may explain the cause of the trouble in the remaining eye, but there is so much damage done to both that our knowledge only makes us the more desirous to prevent these conditions from arising, and in the multiplicity of conditions the principal cause is lost. When enucleation to forestall sympathetic irritation is done, or when the operation is performed with sympathetic irritation just beginning or present, the eyeball removed is in a much better state to examine, and more light can be thrown upon the cause of sympathetic irritation, since severe inflammatory processes cloud the change from sympathetic irritation to that of sympathetic ophthalmia, and the pathological study is more difficult. My collection contains only one specimen enucleated when sympathetic ophthalmia was present, and in this case there was a double acute glaucoma, with sympathetic iritis.

At this time I only desire to place before you some specimens of eyes enucleated for the protection of the fellow eye from sympathetic irritation, or in which it was already beginning or developed; and in these cases good and permanent results have been attained. Four of these cases were due to traumatism; the fifth was of an inflammatory character. All but one of the traumatic cases had the fellow eye affected, and the examination of the enucleated eye in the exceptional case justified the operation. In two cases the sound eye became affected shortly after the injury to the enucleated eye. In one case, no irritation until forty years had elapsed since the accident to the enucleated eye. In one non-traumatic case, there were repeated attacks, for a series of years, of irritability in the sound eye, until the pain in the diseased eye, and the disturbance of the sound eye, compelled operation. In the remaining traumatic case, for twenty years the uninjured eye was unaffected, except rendering the myopia more progressive, which made an operation more imperative for its arrest, and to prevent the outbreak of sympathetic ophthalmia later in life. The patients were aged respectfully, three years, forty years, forty-seven years, fifty years, and seventy years. Three of the patients were males, and two females. In four cases the left eye was enucleated, in one case the right. In every case the injury or disease involved directly or indirectly the ciliary body; and where the crystalline lens remained *in situ*, or the sclerosed tissue infringed most markedly on the ciliary region, the irritation most rapidly in the other eye. Where the crystalline lens was dislocated with weakening of the sclerotic tissue, no irritation appeared for forty years in the other eye. In one case with dislocation of the lens, and detachment of the retina and choroid, no irritation had appeared at the end of twenty years in the other eye. In those cases where the iris became entangled in the cicatrix, sympathetic irritations of the other eye developed most rapidly, in one instance the lens becoming cataractous in the sound eye, while that of the injured one was either absorbed or lost at the time of the accident. In short, is it not to injury of the ciliary nerves, with their varied function, and to the damage done to the tissue in which they are imbedded in the different divisions of iris, ciliary body, and choroid, that we are to look as the cause of sympathetic irritation in the fellow eye; and of these, the ciliary body and nervous structures in it, with or without the involvement of the iris as the prineipal part involved? When sympathetic ophthalmia arises in the sound eye, can it not be traced to inflammatory processes added to the irritation of the ciliary nerves, and involving the iris, ciliary body, and choroid? How far the retina and optic nerve participate in the sympathetic irritation, it is difficult to say, only we find that in sympathetic enucleation for sympathetic irritation, the fellow eye regains the full function of sight. In sympathetic ophthalmia, however, the involvement of the nerves and retina is a more important factor, and the fellow eye is not so likely to be restored to full function of sight, as the conditions in the enucleated eye and in the one affected are more serious on account of marked inflammatory processes.

STAB OF PERICARDIUM, DIAPHRAGM, AND LIVER.

DR. STRITTMATTER exhibited three specimens, which were removed from a German laborer aged sixty-two, a patient in St. Mary's Hospital under Dr. Mears. He had been laboring for some days under a mental delusion, and after writing a clear, intelligible letter to his wife and family in Germany, stabbed himself with a clasp-knife in the right side of the chest several times. He was at once admitted to the hospital. He was much excited, with a rather flushed face, and but little shock. Examination showed two wounds—one over, and reaching down to the cartilage of the sixth rib of the right side, about one and a half inch from the sternal border, and about two inches in length; the other, half an inch from the border of the sternum, and severing from it the cartilage of the seventh and eighth ribs. Closer examination of this wound showed that there were two openings through the costal cartilages about a line apart, the outer passing downward, outward, and backward, the inner in a direction inward, downward, and backward. Through these openings air occasionally passed when the patient respired violently when struggling, causing a high-pitched sucking and blowing sound. None but slight bleeding took place, and that from the integument. Physical signs everywhere normal except over the lower part of the right lung, where increased resonance was noted, and on heavy percussion a kind of "cracked-pot sound" was elicited. Auscultation revealed diminished breathing sound over the upper part of the right lung, while respiratory sounds were entirely absent over its lower portion. Heart's action rapid and irregular; heart sounds feeble, especially the first; pulse, 112; respiration 42, and shallow. There was no sign of internal hemorrhage. Both during inspiration and expiration, when the head and shoulders were raised, and he inspired deeply, a peculiar high-pitched blowing sound was occasionally heard a little to the left and below the ensiform carti-

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lage. It did not resemble the sound produced by gas in the stomach or bowels. Antiseptic dressings were used and morphia given, but he slept little, although nothing was complained of beyond a burning sensation beneath the sternum. The next morning he was calmer, rational, felt pain only during inspiration, and altogether breathed more easily than during the night, although the physical signs remained the same. The abdomen was tympanitic; the pulse full and moderately strong, 92 per minute; respirations 32, and expiration labored. During the next night grew worse. Friction sounds over the whole of the left chest, and on the right side from the apex to the fourth rib. Pericardial friction sounds were also heard. Pulse 100, full and hard; respiration 48, with rapid jerky inspiration, abruptly terminating, to be followed by a free, prolonged, groaning expiration; temperature, 103.2°. During the next twenty-four hours all the symptoms, physical as well as rational, of effusion into the pericardium and both pleuræ developed, but although the abdomen was tympanitic, no signs of effusion were detected. Pulse in evening 126, irregular and intermitting; respirations 40; temperature 101.8°. Had a bad night, and next morning appeared much prostrated, with a feeble, occasionally intermitting pulse of 120 per minute; temperature 102.8°; respiration 40, labored and shallow. Low, muttering delirium now set in; he sank rapidly, and died at 2 P.M. of the 20th, with a temperature of 105.5°.

Sectio cadaveris.—Brain: pia mater adherent, thickened in patches and opaque, especially on either side of the vessels, which were filled with dark blood over the upper convex surface of the left hemisphere. There was a slight amount of serous effusion in the subarachnoid space. The ventricles contained a small amount of serum. Chest: on raising the sternum the right pleural cavity was seen filled with a thick, fatty-looking effusion, with some bands of recent lymph, extending from the lung to the chest-wall. The apex of the lung was quite firmly adherent to the chest-wall. The anterior surface of the lung was covered to the depth of one-fourth of an inch with soft, grayish-yellow lymph. A portion of the back part of the inferior lobe was consolidated. The left pleural cavity was only about half filled with the same thick layer of lymph and adhesions of the apex that were noted in the right lung. No part of the left lung would sink in water. The pericardial sac was distended with fluid, and both upon its inner surface and upon that of the heart was abundance of lymph, connecting the two surfaces by drawn out bands of the same. There was a large chicken-fat clot in the left ventricle, extending about six inches into the aorta. The right ventricle was filled with blood, with a small clot extending into the pulmonary artery. Examination showed that, while there were but two penetrating wounds externally, the knife must have been thrust in repeatedly after partial withdrawal, as there were three openings through the diaphragm, penetrating the liver to the right of its suspensory ligament, and one traversing the lower part of the pericardial sac, and entering the left lobe of the liver for about one inch. The other liver wounds were one-fourth, one-half, and one-sixth of an inch deep. There were no traces of peritonitis, although about two ounces of serum were present, having probably escaped from the pericardial sac through the wound. The liver wounds did not gape; were united and surrounded for about an inch in every direction by a brownish-yellow discoloration. The liver weighed sixty-two ounces. Spleen enlarged and soft; other organs healthy.

DR. MEARS said he was much interested in this case. During life the symptoms of wound of the diaphragm and of the liver were markedly absent, whilst those of injury of pericardium and pleura developed as the interval after the receipt of the wounds increased. The external wounds gave little indication as to the direction taken by the knife after puncturing the thoracic cavity, and, as shown by the post-mortem examination, no information as to the extent of injury inflicted. The absence of symptoms of injury of the diaphragm may be explained by the fact that the wounds were in the tendinous portion of that muscle, and being small did not interfere to any great extent with its function in respiration. In injuries causing laceration of the muscular fibres attached to the ribs dyspnœa occurs as a prominent symptom, by reason of the impairment of the respiratory duty of the muscle. Moreover, the symptoms may have been masked by those referred to the injury of the pericardium, as in wounds of both of these structures dyspnœa is a prominent symptom. The knife in one of the thrusts passed through both, and involved them in a common injury. The only explanation I can offer of the production of the blowing or rather suction sound which was heard under the ensiform cartilage, is that it was occasioned by the passage of air during respiration through the openings in the diaphragm—the air entering primarily the lung cavity through the external wound. The fact that the air did not pass in and out of the external wound during the act of respiration afforded good evidence that the lung was not wounded. The wounds of liver were of such character as to make little or no impression beyond what might occur as the result of injury to the coverings and superficial portions. Puncture of the liver with a trocar is infrequently performed with a view of evacuating fluids. Instances are reported in which no fluid has been found, and no harm has been inflicted by the tapping. Extensive laceration, the result of gunshot wounds or rupture following falls, produce characteristic symptoms of shock and internal hemorrhage.

SECONDARY SARCOMA OF HEART, LUNGS, AND GALL-BLADDER, FOLLOWING PRIMARY AMPUTATION FOR DEPOSIT IN THE FEMUR.

DR. WILLARD exhibited the heart, lungs, and gall-bladder of a female aged 21, whose right thigh had been amputated four months previously for a spindle-celled sarcoma of the lower end of the femur. The apex of the right ventricle was infiltrated with a sarcomatous mass which extended into a cavity among the columnæ carneæ, forming an irregular shaped body occupying one-fifth of the space. The walls were softened. The diseased tissue was very soft and easily detachable, rendering its propulsion into the lungs a matter of exceeding probability at each heart-beat. The walls above the mass were natural in appearance and in thickness; the valves showed no evidence of disease on either side of the heart. The left ventricular and both auricular walls were healthy. The disease had not reached the visceral layer of the pericardium, and there was no abnormal effusion in the cavity of the sac. The septum ventricularum was not involved. That numerous particles had been swept into the lungs was very evident when these organs were examined. At a large number of points in either lung were to be seen white masses, varying in size from that of a pin's head to that of an English walnut. Some of these were dense, others were undergoing softening, and in nearly every instance the lung substance surrounding was so disintegrated that the mass seemed to be in a cavity containing a drachm or more of sanguinolent fluid. A very moderate degree of pressure would cause a nodule near the surface to burst its pleural covering and give rise to an accident similar to the one which was found to have occurred near the right apex. At this point a large sarcomatous mass

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had excited a degree of inflammation sufficient to fasten the lung to the parietal pleura, and one week before the patient's death, ulcerating through the serous covering, had given rise to an internal hemorrhage that was well-nigh fatal, and gave the symptoms of sudden collapse noted in the history. This escaped blood was found in the right pleural cavity confined by adhesions chiefly to the upper portion of the chest. In the week which elapsed between the hemorrhage and death, it had coagulated, formed chicken-fat clots and other coagula weighing fully two pounds. The pleural cavity below the adhesions contained about two quarts of bloody serum. There was no consolidation of the lungs save around the diseased foci. The lungs had evidently acted as a complete strainer and had prevented the passage of emboli, for liver, kidneys, spleen, and all other organs were healthy save one small spot in the gall-bladder. The brain was not examined. The primary disease in the femur had apparently resulted from traumatism, since no difficulty had existed previous to a severe fall upon the knee. From this time the pain on walking was continuous, and four months later there was decided enlargement of the external condyle and swelling in the popliteal space.

The chief points of interest in the case were: *First*, the traumatism acting as an exciting cause. *Second*, that the physician who first saw her detected neither fracture nor luxation, nor anything beyond contusion of the joint. *Third*, the appearance at the end of four months of a pulsating tumor in the popliteal space, which presented a decided bruit, but no thrill. This was due to the lifting of the artery from its bed by the sarcomatous mass. *Fourth*, the non-involvement of the knee-joint, although the nodules had pushed forward the synovial membranes between the condyles posteriorly. The articular cartilage of the femur was intact, although the bone tissue immediately beneath it was extensively diseased. *Fifth*, the return of the disease, not in the stump in the right ventricle, and the failure in circulation and great prostration which came on from four to six weeks after the amputation; and without anything in the condition of the stump to warrant such depression. The patient seemed in *articulo mortis*, yet there was no pain and no dyspnœa, only a feeble rapid heart action accompanied by low delirium and weakness. There were no valve sounds audible. These symptoms were due, as shown post-mortem, to the deposit and development of the sarcomatous mass in the heart. Nature, however, gradually accommodated herself to the new growth, and the patient rallied for a time, so as to be able to walk on crutches, eat heartily, and consider herself in good health. She got fatter, and only slight dyspnœa on exertion, with three or four coughs a day, remained to indicate recurrence of the disease. *Sixth*, a sudden, causeless as to exertion, profuse hemorrhage, from the collapse incident to which she rallied and lived one week, with respiration 30–36, pulse 130–140. *Seventh*, the primary and consecutive growths showed a preponderance of spindle-cells, while the secondary nodules were composed chiefly of round cells. *Eighth*, the post-mortem examination throws great light upon the clinical symptoms, while the great rarity of sarcoma of the heart makes it important to note that there was never any angina pectoris. In Dr. Ingham's report of a case called carcinoma of the heart in the *Transactions* of this Society for 1877, the only case ever presented to this Society, angina pectoris was indicated as one of the diagnostic points. In the report of the Committee on Morbid Growths, Dr. Ingham's specimen was shown to be really an alveolar sarcoma. Secondary sarcomatous growths of the heart are mentioned by various authors, but the histories give no clinical signs of the growth.

DR. BARTON said that in regard to traumatisms causing morbid growths, he considered that they probably had no more causative effect than acting as exciting causes.

DR. FORMAD asked if the exact nature of the primary growth was known; whether it consisted of round or spindle-cells, since it has been stated that the spindle-celled variety never form metastasis.

DR. SEILER replied that the primary growth consisted of both round and spindle-cells.

DR. SHAKESPEARE agreed with Dr. Barton as to the origin of the primary growth. He did not believe that injuries were anything more than exciting causes in those predisposed to such growths. The case presented a typical example of the method of metastasis; we have the growth first developing at the knee, whence particles were carried by the veins to the heart, becoming there lodged, and developing into a tumor, which formed a new centre from which microscopic emboli were carried by the blood-current into the lungs, where they lodged and grew into the nodules seen in the specimen. Metastasis of sarcoma occurs by means of the blood-current, while that of carcinoma takes place through the lymphatics.

DR. FORMAD could see no other cause for the tumor than the injury of the knee, previous to which the patient had never shown any symptoms of disease of the joint, while shortly after receiving the injury the tumor appeared. The tumor may not necessarily be malignant; there is an inflammation and the formation of cells; the malignancy will depend upon the looseness of the cells, and the facility with which they can be transported.

DR. L. R. MILLS then read a paper on the *Brain in Epilepsy*.

DR. BRUBAKER presented a specimen of *Tumor of the Brain*, which, with the accompanying paper, was referred to the Committee on Morbid Growths.

CORRESPONDENCE.

COLOR-BLINDNESS.

To the Editor of THE MEDICAL NEWS.

SIR: On page 712 of your December 23d number you have quoted a notice from the *British Med. Journ.* of November 16th, in relation to the examinations of Dr. Kolbe and other Russian physicians for color-blindness. The article speaks of the very great variation in the percentage found by different observers among railroad employés, varying from 0.85 to 5.00. It does not, however, include Dr. Kolbe's explanation, which he gives in reporting the Russian statistics in the *St. Petersburgh Med. Wochenschrift*, October 23, 1882. This is important for us just commencing the testing on the railroads of this country. It seems that the three gentlemen who found so few color-blind were "sold" by the defective employés getting some normal-eyed to personate them during the examination. Dr. Kolbe wrote me that he had heard this from these gentlemen, and as it has now been proved he publishes it. Thus all criticism as to extraordinary variation in percentage, and consequent doubt as to the observer's skill or the reliability of the method used, falls to the ground. The great value of Holmgren's test is shown by the very uniform results experienced and competent examiners obtain by its use. It and all other methods are useless in the hands of the laity or the inexperienced physician.

Respectfully yours,

B. JOY JEFFRIES, M.D.

BOSTON, 15 CHESTNUT ST.,
December 30, 1882.

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POLYGONUM HYDROPIPEROIDES.

To the Editor of THE MEDICAL NEWS.

SIR: In the MEDICAL NEWS of December 9, I find a short notice of *Polygonum hydropiperoides*, as given in Eberle's *Materia Medica*.

Dr. Eberle says it was brought to his notice by a country practitioner who made it his thesis subject. This was while Dr. Eberle was Professor of Theory and Practice in the Medical College of Ohio, and the country doctor was one Bud Eastman, then practising in the village of Paris, Jennings County, Indiana.

The writer was personally acquainted with Dr. Eastman, and has frequently heard the doctor speak of his thesis upon "*smart weed*." If there is any credit due any one for its introduction into our therapeutics, it is to Dr. Eastman, who was a man of more than ordinary ability in the profession—a safe, careful practitioner. He finally fell in with Millerism or second adventism, became a noted lecturer, drifted south, and died in Texas some twenty years ago.

The writer has practised medicine thirty-three years, and during this time has prescribed the *Polygonum* many hundred times, and has ever found it an emmenagogue of rare virtue. J. W. CONWAY, M.D.

MADISON, IND., December 15, 1882.

A CARD FROM MESSRS. W. H. SCHIEFFELIN & CO., OF NEW YORK.

To the Editor of THE MEDICAL NEWS:

SIR: In your issue of Dec. 16, 1882, you publish an article giving the results obtained by "an expert analytical chemist" (name and fame to us unknown) in the analysis of quinine pills.

We wish it distinctly understood, at the outset, that we are in favor of a most rigid examination of all chemical and pharmaceutical productions, whether of our make or of others, and we do not doubt that your wish is to do justice to all. But we assert that the value of analyses of complex organic mixtures, like pills, depends very largely upon the previous training and experience, as well as the good name and reputation, of the analyst. An analysis not accompanied by the name of the analyst as a pledge of good faith, has no more value than has an unsigned bank check. It is worthless.

Before criticising in detail the methods and results upon which you base your charge, that we, among others, are either careless or dishonest, and are furnishing the trade with short weight quinine pills, we wish to state that *the charge is not true, so far at least as we are concerned*, and we have positive proof to substantiate our statement.

We ask now that we may be allowed to correct some of the erroneous statements which appear in your article, as well as to record some of our objections to the methods of analysis. For convenience of reference we will classify our remarks.

I. A FAULTY METHOD OF ANALYSIS.

Twenty pills were taken for analysis. They should contain 40 grains of sulphate of quinine $(C_{20}H_{24}N_2O_2)_2.H_2SO_4.7H_2O$, equivalent to 29.725 grains of anhydrous quinine ($C_{20}H_{24}N_2O_2$), or 1.486 grain per pill of anhydrous quinine. The analyst recovered 1.420 and 1.424 (average, 1.422) grain of anhydrous quinine from each of our pills; he failed to recover 0.064 grain of anhydrous quinine from each of our pills, a quantity equivalent to 0.086 grain of sulphate of quinine. Failing, therefore, to recover 1.28 grain of anhydrous quinine in a total amount (in 20 pills) of 29.725 grains, you see fit to charge us with not putting in the full amount. In reply we would say that *the method of assay which was used is not one which will allow all the quinine present to be recovered.*

1. *The use of excess of ammonia as the precipitant was unfortunate.* It has been repeatedly shown that quinine is nearly insoluble in solution of soda, more soluble in solution of potash, and very soluble in ammonia. Because of this greater solubility in ammonia the Pharmacopœia (p. 160) directs the use of solution of soda in the assay process for quinine in the scaled salt, *Ferri et Quininæ Citras*. Again, Kerner's test for the purity of sulphate of quinine, now prescribed by the U. S. Pharmacopœia (p. 279), depends upon this very solubility of quinine in ammonia. It is certainly very difficult, if not practically impossible, to remove quinine completely from a solution containing excess of ammonia. In this method of "shaking out" an alkaloid by means of some solvent, the wider the differences in solvent power of the liquids present the more complete the extraction; hence soda would have been a very much better precipitant than ammonia. This statement is corroborated by our own frequently repeated laboratory assays of the scales referred to above.

2. *The use of ether as a separative solvent was also unfortunate.* In selecting a solvent for "shaking out" methods of assay two points must be carefully guarded.

a. The substance should be very much more soluble in the new solvent than in the alkaline liquid from which it is to be extracted.

b. The new volatile solvent should itself be as nearly insoluble as possible in the alkaline liquid.

Neither of these conditions is fulfilled by ether. Pure stronger ether is soluble, according to Dr. Squibb, in eight times its volume of water. Therefore, in any "shake method" of assay, the lower aqueous layer will surely be fully saturated with ether, which latter, in turn, will hold in solution a very perceptible amount of quinine. For this reason many experienced analysts, and notably the U. S. Pharmacopœia (p. 160), favor the use of chloroform.

For the extraction of quinine from uncomplicated aqueous solutions containing excess of soda, no solvent which we have used can compare with chloroform; it is a better solvent for quinine than is ether, and is more nearly insoluble in alkaline solutions (see articles Æther Fortior, Chloroformum Purificatum, and Quinina, U. S. Pharmacopœia, 1880).

3. *The test with potassio-mercuric iodide, as here described, could not fail to give a false indication as to extraction of the quinine.* Quinine is precipitated by this reagent only in neutral or acid solutions; the precipitate so produced is soluble in ammonia. This test, therefore, applied to the "remaining aqueous" (ammoniacal) "liquid" is absolutely worthless as regards the quinine present. On the other hand, gelatine, if present, could hardly fail to be precipitated by Mayer's solution whether quinine were present or not. (*Vide* Prescott's *Proximate Organic Analysis*, pp. 139, 140.)

4. *No allowance is made for experimental errors.* We have shown that the analytical process is one subject to several serious errors, and that, with the most conscientious attention to details of manipulation, the analyst cannot fail to leave unextracted a notable quantity of quinine.

A proper regard for the rights of the parties accused should have prompted the analyst to determine exactly the limits of error to which his process was subject. We can only account for this oversight upon the supposition that the difficulty of extracting quinine from complex mixtures was not fully appreciated by the "expert" employed.

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II. MATHEMATICAL ERRORS.

You have seen fit to condemn various firms, and, in our case, the analyst's failure to extract $\frac{8}{100}$ grain of quinine from each *two*-grain pill, is his reason for charging us with dishonesty or inexcusable negligence.

In matters of this importance, where every $\frac{1}{100}$ grain has great weight in determining our honesty or dishonesty, we have a right to demand that simple mathematical calculations shall be correct. And if we shall show that the analyst has made several errors, we have a right to infer that he himself has been careless.

We beg to point out the following errors:

Manufacturers.	Series.	Analysis.	Anhydrous Quinine.	Analyst's Equivalent Sulphate of Quinine.	Correct Equival-nt Sulphate of Quinine.	Amlyst's Error.
W. H. Schieffelin & Co.,	I	VII	1.42	1.91	1.91	0.00
W. H. Schieffelin & Co.,	II	III	1.424	1.91	1.92	0.01—
Keasbey & Mattison,	III	II	1.42	1.92	1.91	0.01+

It is very peculiar that 1.42 grain of anhydrous quinine should in one case be equivalent to 1.91 grain of sulphate of quinine, and in another case to 1.92 grain, while 1.424 grain of anhydrous quinine represents only 1.91 grain of sulphate of quinine.

We do not care to quibble over $\frac{1}{100}$ grain, and we would not, were it not that we are judged by hundredths-grains, but we refer to the above to show that the *analyst has been careless in making calculations.*

III. MISLEADING COMPARISONS.

We wish to call attention to a singular and very unfair comparison of one sample of pills containing bisulphate of quinine with six samples containing sulphate of quinine.

In speaking of "quinine pills" it is always, and very properly, understood that the pills contain the ordinary medicinal sulphate $(C_{20}H_{24}N_2O_2)_2.H_2SO_4.7H_2O$, a salt containing 74.31 per cent. of anhydrous quinine. Bisulphate of quinine is quite another salt, as appears from its chemical formula, $C_{20}H_{24}N_2O_2.H_2SO_4.7H_2O$.

Now, bisulphate of quinine contains only 59.12 per cent. of anhydrous quinine, and the injustice of your comparison appears in this, that, to those not chemists, you apparently affirm that 1.24 grain of anhydrous quinine represents more "sulphate of quinine" than does 1.42 grain of anhydrous quinine (Table, p. 690). 1.24 grain of anhydrous quinine is in reality equivalent to 1.67 grain of ordinary sulphate of quinine, as appears from the following proportion:

$$74.31 : 100 = 1.24 : x \qquad x = 1.67$$

In your conclusions (I., p. 691) you speak of seven samples of pills, five of which "*have not in them the amount of* SULPHATE OF QUININE *which they are represented to contain.*" Any competent chemist knows that a comparison of pills containing salicylate of quinine with those containing the ordinary sulphate would be no more unfair and misleading than the comparison of bisulphate with sulphate.

And now, it is due to our friends in the drug trade who have so unhesitatingly recommended our pills to the physicians, and due also to the great number of the medical profession who have become accustomed to administer them with implicit confidence, that *we repudiate the imputation which has been put upon us of either carelessness or dishonesty.* We do deny emphatically that the pills tested were short weight. We have shown how the analysis might have failed in finding a true result from imperfections in its method. We now assert that the analyst was at fault in regard to our pills.

1st. Because *we know* that the full weight of sulphate of quinine was put in them.

2d. Because, since the publication of your article, we have examined the record of our production of them as far back as the 1st of July, and find that the variation between the quantity of sulphate of quinine used, and the corresponding number of pills produced amounts to a mere fraction of one per cent., a degree of accuracy unattainable in extemporaneous dispensing. Pills made to order on physicians' prescriptions can be divided with only approximate exactness, and to make correctly only a few granules at a time in minute subdivisions is an impossibility. With us the liability to error is reduced to a minimum, for the chances of mistake in one skilled person making 5,000 pills at once, as against one hundred persons making collectively the same number, are as one to one hundred.

3. We have repeatedly had them analyzed by Mr. H. B. Parsons, who is not unknown as a chemist, and they were found by him to contain sulphate of quinine in full weight.

In regard to the comparison of prices, we care nothing, and only refer to it in order to show where the compiler seems to be weak, and that is in exactness or in carefulness. A slight examination of the table will show that, while purporting to give retail prices, it has, in some cases, given wholesale long prices, and in others wholesale net prices, and is as misleading as are the analyses.

In conclusion we desire to call your attention to the fact that the injury which such a publication as the one under consideration is calculated to inflict on parties whose names are used in such a connection is not likely to be overcome by any reply which may be made, as in many cases the persons who may have read the first article will never see the reply, and, if they do, will perhaps not read it carefully; we trust, therefore, that your sense of justice will induce you to give this reply as general and wide a circulation as that accorded the original article.

Yours truly,

W. H. SCHIEFFELIN & CO.

NEW YORK, December 30, 1882.

[In reply to the above card, it seems almost unnecessary to state that the report of the results of our analyses of quinine pills was not put forth anonymously, but was published as the work of THE MEDICAL NEWS Commission, and "the good name and reputation" of THE MEDICAL NEWS is the guarantee of the trustworthiness of the results obtained.

It is unfortunate that Messrs. Schieffelin & Co.'s general denial of the accuracy of our analyses is not accompanied with that "positive proof" which they assume to furnish. Apart from a general assertion as to the quantity of quinine issued since July 1st—an assertion which we of course do not presume to question—their card resolves itself, when examined, into criticisms reflecting upon the analysis, and objections to the method employed. The several points of objection will, therefore, be considered *seriatim.*

As regards the statement that "the method of analysis was faulty" because: 1. "The use of an excess of ammonia as the precipitant was unfortunate." 2. "The use of ether as a separative solvent was also unfortunate;" the simple fact is that, by this means, the amount of quinine contained in a solution may practically be *fully* recovered.

That quinine is more freely soluble in ammoniacal liquids than in pure water, or in solutions of soda or potassa, and that it is more freely soluble in chloroform than in ether, are facts which were considered to be so well known as to render any allusions to them unnecessary.

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That ether is soluble in water to the extent mentioned was not overlooked in the making of our analysis. It is, however, plainly evident that the amount of quinine held in solution by the ether dissolved in the water must of necessity be reduced to an inappreciable amount, when the relative volumes of the aqueous liquid and ether employed are considered, and when the aqueous liquid is repeatedly shaken with fresh portions of ether and the ethereal layer in each instance is carefully separated. That the quinine is thus as completely recovered as is possible by any method of assay, is believed to be satisfactorily proven by the application of the test with potassio-mercuric iodide.

To the statement that "the test with potassio-mercuric iodide, as here described, could not fail to give a false indication as to extraction of the quinine," the answer is that the conditions attending the application of this reagent as a test for alkaloids were perfectly well known to our Commission, and the statement was not made in the report that the *ammoniacal* liquid was directly subjected to the test. The "remaining aqueous liquid," as stated in our report, was, indeed, tested; but not, however, without having been previously supersaturated with an acid; a condition which was considered so well known to chemists as not to require specific description.

The Messrs. Schieffelin further state that "for the extraction of quinine from uncomplicated aqueous solutions containing excess of soda, no solvent which we have used can compare with chloroform; it is a better solvent for quinine than is ether," etc. etc.; and further, the supposition is expressed "that the difficulty of extracting quinine from complex mixtures was not fully appreciated by the 'expert' employed." Now, it must be conceded that an aqueous solution of quinine containing considerable amounts of sugar, gelatine, etc., can *not* be considered an "uncomplicated solution," and that an amount of chloroform which would be sufficient readily to abstract the quinine from a pure solution, or one containing simple inorganic salts, would form, in the case of a solution thus complicated, a very viscid mixture.

The exactitude of the methods, and the avoidance of what Messrs. Schieffelin & Co. call "experimental errors," are sufficiently proved by the close coincidence of results arrived at in successive analyses, without any knowledge on the part of the operator as to the source of the specimens on which he was at work.

As considerable prominence has been given by Messrs. Schieffelin & Co. to the subject of "mathematical errors," and as they "demand" that "the mathematical calculations shall be correct," we presume that they will be satisfied when they see that such has been the case.

The discrepancy of $\frac{1}{100}$ grain in the tabulation of the result, which they supposed they had discovered, is attributable to the fact that in the second series of analyses, in stating the amount of anhydrous quinine, the third decimal was inserted, which was omitted in those of Series I. and III. The amounts of anhydrous quinine obtained by our Commission, extended to the third decimal, were as follows:

Manufacturers.	Series.	Analysis.	Anhydrous Quinine.	Equivalent of Sulphate of Quinine.
W. H. Schieffelin & Co.....	I	VII	1.422	1.914
W. H. Schieffelin & Co.....	II	III	1.424	1.916
Keasbey & Mattison.....	III	II	1.426	1.919

The statement criticised was, therefore, as correct as was possible within two decimals.

The Messrs. Schieffelin & Co. call attention to what they consider "a singular and very unfair comparison between bisulphate and sulphate of quinine pills," which, as stated by them, would mislead the reader into supposing that we had compared the amount of anhydrous quinine in these respective pills. It seems almost unnecessary for us to deny that we made any such comparison. The investigation by our Commission was solely to ascertain if the quinine pills on the market contained the amount of quinine sulphate, or bisulphate, as the case may be, which they were represented to contain, and the clear view of the result is not to be clouded by any extraneous issue. The reason why in the case of one house the bisulphate pills were analyzed was because that house sells and advertises to sell the bisulphate whenever quinine pills are called for, since they are believed to be more readily soluble than the sulphate.

As regards the comparison of prices, it is sufficient to remark that the Commission simply reported the prices which it paid, like any other retail purchaser. This is all that the profession and their patients are interested in; the questions of "wholesale long prices," and "wholesale net prices," are trade mysteries with which THE NEWS has nothing to do.—ED.]

NEWS ITEMS.

BOSTON.

(From our Special Correspondent.)

DR. CARPENTER'S SIXTH LECTURE ON HUMAN AUTOMATISM.—This lecture, which concluded the course, considered automatism in morals. The lecturer began by stating the theory of pure automatism, as distinguished from his own theory of automatism controlled by the will, as follows: Man cannot be an exception to the general uniformity of nature; all his action is the result of what has gone before; choice is as absurd as in the case of a bar of iron between two magnets; "I cannot be other than I am; I cannot do otherwise than I do," is the automatist's creed. This position was then criticised as not taking account of human nature, which does not work in sequences as material forces do. The theory of a limited choice on the part of the human agent will explain all the facts brought forward by the automatists and many which their theory will not explain. A large body of moral experiences is utterly inconsistent with the automatist view. Now moral experience is determined by the original constitution and acquired habits. The habits are formed in youth, and the most important part of early training is that which relates to control of the bodily appetites and passions, as well as of the intellectual powers. As a proof of the freedom of the human agent, the lecturer dwelt upon the power of fixing the attention. He next considered the several motives which excite human action. First of all is the desire for air, which is so intense that persons never take their own lives by suspension of the breath, but by direct act of the will. But they overcome this desire by a flank movement, by means of muscles over which the will has more powerful control. Thus individuals commit suicide by holding the face in a basin of water, or by hanging when they could easily save themselves by touching the feet to the floor. Next ranks the desire for food. The influence of alcoholic drink was discussed, the lecturer saying that alcohol seriously modifies the constitution and its effect is hereditary.

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Coleridge was cited as the most remarkable example of intellectual antomatism of the brightest type. But he lacked power of self-direction and was put under the control of a guardian. His son Arthur inherited his father's weakness, and was irresponsible for his unhappy end. Moral motives were considered, the dominant motive, according to the lecturer, being the desire to do right. But this motive varies greatly in clearness. In the case of street children, they apparently think that which they like is right, and that which they do not like is wrong. As an instance in point the Feejee Islanders were mentioned. Their morals have been regarded as nearly or wholly lacking, but an experienced observer has found that the Feejees have a strict sense of the weight of the *nomas* or law, and on their plane are rigid in their actions. In regard to morals the lecturer quoted the words which have been said to embody all morals: "I am, I ought, I can, I will." The first implies power of introspection. The second directs our attention to the consequences of our acts, and leads us to intensify their force by keeping the mind upon them. We possess the power of self-regulation in the power of control over our fixed character. By fixing our minds upon a lofty motive a flank movement may be made which shall defeat a base motive. No human power can be so strengthened by practice as this power of self-control. Every successful moral conflict leaves the victor so much the stronger—with so much the more good—for the next struggle. The best means to conquer temptation is to fix the mind upon some other object. It is bad policy constantly to say. "I will not yield to this," for then the object is kept before the mind; but the mind should resolutely be turned to some other thing. Instead of brooding over wrongs and the slights inflicted upon us by friends, the remedy is not to say: "I will not think of it," but to direct the mind into some other channel. Morose feelings, frequently, are the result of some bodily derangement, often of the liver. Nothing is worse than brooding. In periods of depression the lecturer had found much relief in reading Scott's novels. He concluded by saying that the moral automatism is largely under the control of the will.

THE APPROPRIATION TO THE ARMY MEDICAL MUSEUM AND LIBRARY.—We are glad to be able to announce that the House of Representatives, in the debate on the Army Appropriation Bill, has restored the appropriation for the Army Medical Museum and Library to the usual amount. The following is an extract from the *Congressional Record* of Jan. 4th:

MR. BUTTERWORTH.—In regard to that item, I will state to the Committee that it was reduced by the subcommittee on Appropriations from $10,000 to $7,500, and we had such a storm raised about our ears because of the fact that this is the pet of the whole medical profession, that after we had reduced it to that sum I moved to restore it to the amount of the estimate. The Committee on Appropriations, the whole committee, instructed, however, that this should be restored to $5,000. It has heretofore been $10,000. It relates to the collections made during the war, and stored in the Army Medical Museum, and for works of reference for the Surgeon-General's office; and I believe it is the finest collection possibly in the world. They insist that a larger sum is necessary. How it is necessary, however, was not made to appear, and the Committee instructed this reduction to be made.

MR. TOWNSHEND, of Illinois.—Let me ask the gentleman, if any consideration was given to the construction of a fire-proof building for the museum?

MR. BUTTERWORTH.—Yes. I will say to my friend this, that a part of the public building proposed to be erected for a library, would be devoted exclusively to this museum, and to the articles there gathered, together with the library.

MR. TOWNSHEND, of Illinois.—I have received communications from many persons, who speak of the library and museum as of great value, and of the necessity for the erection of a fire-proof building for their preservation.

MR. BUTTERWORTH.—There is no doubt of it. The gentleman is correct. It is asserted by many doctors to be one of the most valuable collections in the world; and it is now stored in what you might almost say is a mere tinder-box, liable to be destroyed by fire at any time. That is one of the reasons the committee deemed it unnecessary to add materially to the collection while it is in that building, but deemed it proper to withhold appropriations until a more suitable building was secured.

MR. TOWNSHEND, of Illinois.—Do the committee make any recommendations upon the subject?

MR. BUTTERWORTH.—The committee believe that a part of the new library building might be necessary for this museum.

MR. TOWNSHEND, of Illinois.—Does the gentleman think that it would be wise to separate the library from the museum? In my judgment they ought to be together.

MR. BUTTERWORTH.—The proposition was, to set apart a section in the new library building, to be devoted to the museum and its library.

MR. HEWITT, of New York.—Permit me to say that the amount, $10,000, appropriated last year was not, in the judgment of many eminent in the medical profession, sufficient. That, I suppose, the gentleman from Ohio understands. Five thousand dollars is entirely inadequate. This library is the most complete library in the world on medical subjects. The object is to complete it, and to keep it complete. Five thousand dollars a year will not purchase the new publications necessary to keep it up to its present standard. I think this is perhaps the wisest expenditure of money we can possibly make with reference to disease.

MR. BUTTERWORTH.—If the gentleman from New York will yield to me, I beg to state that I will move to increase the appropriation to $10,000.

MR. HEWITT, of New York.—That is right.

MR. TOWNSHEND, of Illinois.—I desire to say a word, unless the gentleman from New York (Mr. Hewitt) wishes to retain the floor.

MR. HEWITT, of New York.—I have finished what I had to say.

MR. TOWNSHEND, of Illinois.—I think true economy would require we should make provision for the preservation of the library and museum, and that a mere increase of the appropriation is not sufficient. I would suggest to the gentleman from New York (Mr. Hewitt) or the gentleman from Ohio (Mr. Butterworth) to bring in a provision here for the erection of a fire-proof building for the preservation of the museum and library.

MR. BUTTERWORTH.—I do not think that would be proper in this bill, although I agree with my friend from Illinois it is something which ought to be done.

The question being taken on the amendment offered by Mr. Butterworth, to strike out "$5,000," and insert "$10,000," it was agreed to.

CITIZENS' AUXILIARY SANITARY ASSOCIATION OF NEW ORLEANS.—According to the New Orleans papers a sanitary war is in progress in that city. It appears that the Auxiliary Sanitary Association, which was called into being by the sufferings of the city during the epidemic of 1878, and which since that time has labored to improve the sanitary condition by securing

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clean streets, and the removal of all nuisances which are so apt to accumulate in an unsewered city, has recently made an effort to prevent the spread of smallpox by representing to the City Council the danger attending upon the usual burial service in cases of death from this disease. The association in the first instance offered to coöperate with the board of health to obtain appropriate legislation, but it does not appear that any action was taken by that body to meet the views of the citizens. One gentleman complained that a fatal case of smallpox occurred in the house which adjoined his own, and that no warning was given by the board of health. His first knowledge of the existence of the disease so near to his own household was conveyed by the funeral of the deceased. At a meeting of the board, a few days later, it decided that the association, instead of remaining "auxiliary," was becoming "*supersidiary*," and forthwith passed a resolution for its suppression. Nevertheless the association yet lives, and has tendered its support in the work of sanitation to the City Councilmen in an address, in which it adverts to some of the most important permanent works which have been accomplished by it.

SMALLPOX IN VIRGINIA.—A telegraphic despatch from Lynchburg states that smallpox has made its appearance at Salem, Roanoke County, and that thirty cases have already been reported. The neighboring towns of Roanoke and Wythville have quarantined against Salem, and other southwestern towns are considering the question of doing likewise. Roanoke College has suspended, and the students have gone home. The public schools have also closed, and business is at a standstill.

TROUBLE IN MCGILL UNIVERSITY.—A telegram from Montreal states that trouble has arisen in McGill University between the medical students and Dr. Wright, Instructor in Materia Medica. One hundred and forty-seven students demand the resignation of Dr. Wright, and threaten to leave the university if their demand is not complied with.

COMPLIMENTARY DINNER TO PROF. AUSTIN FLINT, SR.—Prof. Flint, who completes to-night his course of lectures before the Philadelphia County Medical Society, was entertained last evening at dinner at the Hotel Bellevue by a number of the prominent members of the medical profession of Philadelphia. Covers were laid for forty, and Prof. Alfred Stillé, President of the College of Physicians, presided, with Prof. Flint on his right and Prof. Gross on his left. Among those who participated were Dr. John L. Atlee, President of the American Medical Association, Drs. D. Hayes Agnew, Da Costa, Goodell, Bartholow, Austin Flint, Jr., S. Weir Mitchell, E. Wilson, A. H. Smith, W. V. Keating, Wm. Thomson, John Ashhurst, Jr., J. H. Brinton, I. M. Hays, and others. The arrangements of the dinner were under the charge of a committee consisting of Drs. Alfred Stillé, J. M. Da Costa, Wm. Pepper, S. W. Gross, James Tyson, Horace Y. Evans, and J. Ewing Mears. Towards the close of the dinner, the chairman proposed, in a few graceful remarks, the health of the distinguished guest, which was responded to by Dr. Flint in a feeling manner.

ELECTION OF OFFICERS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.—The annual meeting of the Philadelphia County Medical Society was held on January 3d, and the following officers were elected for the ensuing year:

President.—William M. Welch, M.D.

Vice-Presidents.—Drs. William R. D. Blackwood and Addinell Hewson.

Recording and Reporting Secretary.—Henry Leffman, M.D.

Corresponding Secretary.—H. Augustus Wilson, M.D.

Treasurer.—L. K. Baldwin, M.D.

Librarian.—C. M. Seltzer, M.D.

PROF. HENLE, the eminent anatomist, has been elected, in the place of the late Prof. Wöhler, as permanent secretary of the Royal Academy of Sciences, at Göttingen.

THE NEW YORK SOCIETY OF MEDICAL JURISPRUDENCE.—The newly organized New York Society of Medical Jurisprudence held its first public meeting last Thursday evening at the Academy of Medicine. Dr. J. S. Wight, Professor of Surgery in the Long Island College Hospital read a paper on the "Bearing of Illusions and Hallucinations on Testimony."

This society was organized last month. Its object is the "advancement and study of the science of medical jurisprudence and the attainment of a higher standard of expert testimony." It has a membership of more than one hundred physicians and lawyers. Among the prominent medical members are Drs. Meredith Clymer, T. E. Satterthwaite, Clinton Wagner, T. C. Finnell, C. S. Wood, W. A. Hammond, Nathan Bozeman, T. A. McBride, J. S. Wight, and L. C. Gray. The society will hold monthly meetings.

ABOLITION OF THE GRADUATION THESIS.—The Senate of Toronto University has abolished the statute which requires candidates for the degree of M.D. to write a thesis.

NEW YORK POLYCLINIC.—The attendance at the New York Polyclinic during its first course of six weeks has been such as to assure the success of the institution. Fifty-nine practitioners took out tickets, twenty-seven of these being in the Gynecological Department, and 1089 new patients were treated in the dispensary.

HEALTH IN MICHIGAN.—Reports to the State Board of Health by observers of diseases in different parts of the State, for the week ending Dec. 30, 1882, indicate that intermittent fever has considerably increased, and that scarlet fever, consumption, membranous croup, measles, and remittent fever have increased in area of prevalence.

Compared with the average for the month of December in the preceding five years, neuralgia, tonsillitis, and dysentery were more prevalent, and remittent fever, intermittent fever, diphtheria, bronchitis, consumption, and pneumonia were less prevalent during the month of December, 1882.

Including reports by regular observers, and by others, diphtheria was reported present during the week ending Dec. 30, and since, at 18 places, scarlet fever at 12 places, measles at 7 places, and smallpox at 2 places, as follows: at Richmond, Osceola Co., Dec. 27; at Ionia (one case), Jan. 3, 1883.

Three cases of scarlet fever are reported at Marquette among immigrants just arrived from England. The disease was contracted on the steamer.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 1 TO JANUARY 8, 1883.

MCKEE, J. C., *Surgeon.*—To report, on or before Jan. 1, 1883, to the commanding officer Fort Winfield Scott, Cal., for assignment to duty as Post Surgeon.—*Par. 1, S. O. 197, Department of California, December 28, 1882.*

GORGAS, W. C., *Assistant Surgeon.*—Relieved from the temporary duty to which he was assigned under par. iv., S. O. 137, Department of Texas, and will report to the commanding officer Fort Brown, Texas.—*Par. 2, S. O. 140, Department of Texas, December 26, 1882.*

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THE MEDICAL NEWS.

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ORIGINAL LECTURES.

PHILADELPHIA COUNTY MEDICAL SOCIETY LECTURES.

ON THE PHYSICAL EXPLORATION OF THE LUNGS BY MEANS OF AUSCULTATION AND PERCUSSION.

A course of three lectures delivered by invitation before the Philadelphia County Medical Society.

BY AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

LECTURE III.

AUSCULTATION, CONTINUED AND CONCLUDED.

Delivered January 13, 1883.

THE adventitious sounds or râles produced by acts of respiration, and the vocal signs, will furnish the topics to be considered in this lecture.

MOIST AND DRY BRONCHIAL RALES.

The bronchial râles, moist and dry, were studied and explained by Laennec so completely and accurately that they need at the present time, in these regards, no modifications nor additions. Diversified as are the sounds, he reduced them to three signs, namely, the mucous (more correctly called the moist bronchial or bubbling râles), the sonorous, and the sibilant râles. These are distinct from the crepitant, the subcrepitant, and the crackling râles, which require separate notice. The crepitant and the crackling râles are distinguished as not bronchial but intra-vesicular in their source. It is interesting to contrast this simple division by Laennec with the over-refinement by Fournet. That author describes five varieties of intra-vesicular râles, five varieties of extra-vesicular râles, and four varieties of bronchial râles. Skoda aimed at simplicity in his division, but it is in striking contrast to the simple arrangement by Laennec. Skoda divided the râles which have been referred to, into: 1st. A vesicular râle; 2d. A consonating râle; 3d. A dry crepitating râle; and, 4th. Indeterminate râles. The effect of this division and nomenclature is to substitute confusion and error for clearness and correctness. It is needless to mention here the physical conditions which the moist and dry bronchial râles represent. I will make one practical remark respecting the clinical significance of the moist or bubbling (or, as called by Laennec, the mucous) râles—namely, they are often wanting in bronchitis affecting the larger and medum-sized tubes, for the reason that adhesive mucus and solid sputa are not suited for bubbling. These râles occur when the bronchial tubes contain pus, serum, blood, or liquefied tuberculous deposit.

It is pleasant to find in Skoda's treatise a statement, with respect to these râles, of an important practical fact. I quote the statement referred to as follows: "The pitch of a râle generally corresponds to that of the respiratory murmur which is either replaced by or accompanies it." Again, "The acute, large, or unequal bubbling thoracic râles indicate the same condition of the lung tissue as bronchophony and bronchial respiration." The importance of this fact is perhaps not always appreciated by auscultators. It enables the auscultator to determine by the râles alone, if respiratory sounds be, as they sometimes are, absent, whether solidification of lung exists or not. For examples, the bubbling râles in capillary bronchitis and pulmonary œdema are always low in pitch, denoting non-solidification of lung. These râles are high in pitch in a lobe solidified by pneumonia or by a phthisical affection. It does not seem to me easy to explain this effect upon the pitch of râles by solidification of lung, but it is not less true, on that account, as a clinical fact determined by observation.

The moist bronchial râles are easily illustrated artificially as follows: Attach to a Davidson's syringe a long India-rubber tube, or a series of tubes differing in size. After passing a little water through the tube or tubes, bubbling sounds are produced by a current of air for several hours. To observe these the tube should be held close to the ear, and other sounds excluded by covering the ear and the tube with the palm of the hand. This experiment shows that a very little liquid is sufficient to produce much bubbling, and therefore the abundance of moist bronchial râles is not evidence of much liquid.

The dry râles, sibilant and sonorous, can be illustrated with India-rubber tubes, either attached to Davidson's syringe or using the breath, by contracting the tubes at certain points. This may be done by either applying ligatures or compression with a forceps. It requires, however, some pains to secure the precise amount of contraction of the tubes necessary for the production of whistling and snoring sounds. The experiment, thus, while it demonstrates the mechanism of these râles, is defective in some accessory physical conditions which are involved in their production in cases of asthma and bronchitis.

SUBCREPITANT AND CREPITANT RALES.

Laennec described a moist crepitant râle, a subcrepitant râle, and a dry crepitant or crackling râle. His descriptions, as far as they go, are exact, but he failed to draw a sharp line of distinction between the râles now well known as the crepitant and the subcrepitant. The error of attributing the crepitant as well as the subcrepitant râle to the bubbling of liquid, probably occasioned perplexity. The fact that the crepitant râle is heard with inspiration and never with expiration, would not occur to him as probable if both were bubbling sounds; hence he failed to recognize this important distinctive point. That he confounded the crepitant and the subcrepitant râle, seems certain; yet he regarded the crepitant râle as the pathognomonic sign of pneumonia. In this respect he was in advance of his commentator, Skoda, who declared that the crepitant râle is only occasionally limited to inspiration, and that "no distinctive line can be drawn between crepitating, subcrepitating, and mucous râles." This must seem a remarkable statement to the auscultators of to-day; at all events, to those of this country. Not less remarkable is Skoda's statement that he has not often observed, in cases of pneumonia the crepitant râle as described by Laennec.

The true explanation of the mechanism of the crepitant râle was first given by an American writer, the late Dr. E. A. Carr, of Canandaigua, New York, in a communication published in the *American Journal of the Medical Sciences*, in 1842. This explanation attributes it to the separation of the walls of air vesicles in

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the act of inspiration, more or less of the walls having become *adherent* at the end of the act of expiration, from the presence of adherent mucus. It is probably more accurate to say that the sides of the ultimate bronchial tubes or bronchioles adhere at the end of inspiration, and are separated by the act of inspiration; hence, it is not strictly correct to call the crepitant râle a vesicular râle. It is not a bubbling sound, and the application to it of the term moist, is one of the few instances in which Laennec's observations were influenced by his reasoning. A true crepitant râle is characterized by dryness; but it is to be considered that Laennec did not discriminate sharply the crepitant from the subcrepitant, the latter being a moist or bubbling sound. After the lapse of forty years the explanation by Carr has made considerable headway as regards its general adoption. The explanation is so simple, it accounts for the peculiar characters of the sign so completely, and its correctness may be rendered so demonstrative by artificial illustrations, that it would seem as if it should at once have been adopted. Carr's imitation of the râle was by moistening the thumb and forefinger with a little mucilage, and alternately pressing them together and separating them, held close to the ear. As already stated, a crepitant râle may be obtained by auscultating directly a healthy lung after its removal from the body. The illustration is better after twenty-four hours than shortly after the lungs are removed. But the most perfect illustration was by means of an article made ten or twelve years ago, of India-rubber, to serve as a substitute for a sponge. This article was in structure like a very fine sponge; when compressed and then allowed to expand, holding it close to the ear, the representation of the crepitant râle was as perfect as possible. This illustration furnished demonstrative proof that the râle is not a bubbling sound, and that it is produced by the separation of adherent surfaces, for in using the article to illustrate the sign, not the least moisture was required.[1]

The subcrepitant râle may be illustrated with the lungs of the calf or the sheep. After having obtained, by application to the lungs of the binaural stethoscope, the crepitant râle, which, as has been seen, may be in this way illustrated, a certain quantity of liquid (water or glycerine) is to be poured into the trachea. Now, imitating respiration by inflating with the bellows, the subcrepitant râle is beautifully represented. The bubbling is extremely fine, and is associated with crepitation. It is heard with the current of air which represents expiration as well as that representing inspiration. A similar association of the crepitant with the subcrepitant râle is by no means uncommon in pneumonia, and is, perhaps, the rule in the resolving stage of that disease. It is probable that this fact contributed to Laennec's confusion as regards these two râles.

A recent theory attributes the crepitant, the subcrepitant and, indeed, other bubbling râles, to intra-pleural exudation and adhesions. The experiment just stated demonstrates the fact that each of these râles may be produced within the lungs removed from the body. Autopsical examinations in cases in which these râles have been observed during life, show the existence of physical conditions analogous to those in that experiment. The râles are found in cases in which examinations after death show no pleural exudation or adhesions. On these data may be based the assertion that the intra-pleural theory of the production of these râles is, to say the least, purely gratuitous. This is not saying that the stretching of fibrin, or of newly formed tissue between the pleural surfaces, may not sometimes produce sounds which simulate these râles. I cannot, however, think that the ear of an experienced auscultator can be thereby often deceived.

The pleural friction sounds with which every practical auscultator is familiar, have characters which are sufficiently distinctive. They are expressed by such terms as grazing, rubbing, creaking, grating, rasping, and not by bubbling or crackling. They are irregular in their connection with the respiratory acts, occurring with some and not with other successive acts; now heard in inspiration and now in expiration; sometimes at the beginning and at other times near the end of either inspiration or expiration; in some instances being continuous, in other instances interrupted or jerking, and not infrequently disappearing temporarily after repeated forced respirations. These are not characters in common with the crepitant or the subcrepitant râle. A highly distinctive feature is their apparent superficial seat. They seem to be produced directly beneath the ear applied to the chest, or the stethoscope. Râles produced within the air tubes or vesicles differ in this regard. Of the clinical significance and importance of pleural friction sounds, it is unnecessary to speak.

Laennec described a râle under the name "dry crepitant, with large bubbles or crackling" (*râle crepitant sec à grosses bulles ou craquement*). He stated, as a distinctive feature, that it is limited to the inspiratory act. He supposed it to be a diagnostic sign of pulmonary emphysema. There is an obvious incongruity in calling the sign a dry râle, with large bubbles. The term crackling is more definite. At the present day this râle is not generally recognized as a distinct sign. Skoda admitted its existence, but remarked, somewhat flippantly, that they who had failed to recognize it had not lost much. A râle such as Laennec described is the crackling at the summit of the chest, which is one of the accessory signs in the early stage of phthisis. It is sometimes heard at the summit of the chest on both sides in healthy persons at the end of a very deep inspiration. It is certainly not of much diagnostic value in pulmonary emphysema, but I have sometimes met with it occurring in connection with that affection. It has seemed to me to originate in the portions of lung not having become emphysematous. I have regarded it as an abnormal exaggeration of the vesicular quality of the inspiration in the normal respiratory murmur.

Metallic tinkling, a sign with characters so distinctive that it is recognized at once from a description of them, has given rise to diversity of opinion and much discussion in regard to its mechanism, there being no lack of agreement in respect of its clinical significance. Jacob Bigelow, in 1839, demonstrated by a few well-devised experiments that the dropping of liquid in a space containing liquid and air gives rise to the sign. This was Laennec's explanation. Bigelow, however, demonstrated that the sign was also produced by the explosion of bubbles on the surface of a liquid, within a cavity containing both liquid and air. This was the explanation given by Bean, Dance, and Spittal. These two explanations require the presence of liquid as well as air within either the pleural cavity or a pulmonary excavation. A third mode of production is the bursting of bubbles of air at the mouth of a fistulous opening into the pleural cavity, or at the point of communication of a bronchial tube with a pulmonary excavation. It is easy to demonstrate the correctness of each of these explanations. The sign may be produced by either of the three modes, and, clinically, each is applicable to certain instances. For this demonstration we may employ the India-rubber bag be-

[1] A similar article is now made and used by artists. Something, however, is combined with the India-rubber, making it better adapted for its use as a sponge, but impairing very much its fitness to illustrate the mechanism of the crepitant râle.

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longing to the modern foot-ball, which has been found serviceable in illustrating tympanitic resonance on percussion, and amphoric respiration. If the opening into this bag be connected with an India-rubber tube of sufficient length, the bag partially filled with a liquid and inflated, metallic tinkling may be produced by holding the bag so that the opening is dependent, and causing bubbles at the surface of the liquid by introducing air through the tube from the mouth. It will be found that the quantity of liquid within the bag must not be large, otherwise gurgling is produced instead of the tinkling sounds. Tinkling sounds may be produced by making the other end of the bag dependent, and thus causing drops to fall from above to the surface of the liquid. Shaking the bag will also produce the sounds. Now, if the liquid within the bag be allowed to escape, and a few drops remain in the tube, on blowing into the latter and holding the bag close to the ear, excellent examples of this sign are obtained. This last experiment gives the best illustration, and it is probable that it exemplifies the most frequent of the modes in which the sign is produced clinically.

We are now to consider vocal signs, and, first, the signs which are incident to the laryngeal or loud voice.

The names bronchophony, pectoriloquy, and ægophony, applied by Laennec to vocal signs, are still, and will probably always remain, in common use. It is, however, conceded on every side that in the description and interpretation of the first two of these signs (bronchophony and pectoriloquy) Laennec's treatise is defective. It is evident, in reading that portion of his treatise which is devoted to these signs, that his mind was biased by the desire to establish pectoriloquy as a cavernous sign. According to his description of bronchophony, "the voice seldom traverses the stethoscope." In pectoriloquy, on the other hand, the voice traverses the stethoscope either wholly or in part. By this language he means, doubtless, that the voice in pectoriloquy seems to be more or less near the ear of the auscultator. The distinction is a just and good one, but, as will presently be seen, it is not characteristic of a cavernous sign. The confused idea in Laennec's own mind is shown by his division of pectoriloquy into three varieties, namely, perfect, imperfect, and doubtful. The last variety, as he admits, is not to be distinguished by its intrinsic characters from bronchophony. A doubtful physical sign can hardly have much clinical value, and, quoting from an essay by Oliver Wendell Holmes, "To speak of the tones of the voice being heard a *short distance up the stethoscope*, is to present to the student a distinction of such tenuity as must seem beyond the reach of his faculties."[1] The vulnerability of this part of Laennec's treatise did not, of course, escape the critical eye of Skoda; but, if it be correct to say there is confusion in the account of bronchophony and pectoriloquy by Laennec, there is "confusion worse confounded" in Skoda's description. Skoda, after distinguishing the normal variations of the thoracic voice by the terms, *loud*, *clear*, and *humming* (terms which are not very sharply distinctive), and after concluding that bronchophony and pectoriloquy are identical, makes the following abnormal varieties: "1. The voice, accompanied by a concussion in the ear, completely traverses the stethoscope—loud bronchophony, which may be either clear or dull. 2. The voice, unaccompanied by concussion in the ear, passes incompletely through the stethoscope—weak bronchophony. 3. An indistinct humming, with or without a barely appreciable concussion in the ear."

[1] *Vide* Prize Dissertation. Published by order of the Massachusetts Medical Society, Boston, 1836.

It will be observed that there is no provision for ascertaining these modifications by immediate auscultation—the stethoscope is essential. I can sympathize with the student or the practitioner who attempts to grasp the distinctions set forth in this quotation, and to apply them at the bedside. The perplexity is not diminished by reading all that the author has to say with a view to their elucidation in the pages which follow. Adopting Skoda's account of vocal signs, it is not to be wondered at that a late German author, to whom I have repeatedly referred—Eichhorst—thus introduces a chapter on auscultation of the voice: "Its diagnostic value has been much over-estimated. It hardly ever furnishes original diagnostic results, and, almost without an exception, its object is to confirm conclusions obtained by previous methods of investigation." I am sure that this quotation does not express the estimate in which the vocal signs are held in our country, as bearing on the diagnosis of pulmonary diseases.

How are we to determine the signs which are incident to the loud voice and their differential characters? There is but one way, and that is by means of the analytical method of study. This method requires, as the point of departure for determining the morbid signs, study of the thoracic voice in health. This study shows that if we except characters which in some healthy persons belong to the voice as transmitted over the extra-pulmonary bronchi, especially on the right side of the chest, the *normal vocal resonance* is low in pitch, the voice seems diffused and distant from the ear, and it is accompanied by a perception of more or less vibration, thrill, or fremitus, which is not an acoustic but a tactile sensation. It is important to discriminate the fremitus from the resonance.

BRONCHOPHONY.

Proceeding now to morbid signs as determined by analytical study, it is a highly distinctive abnormal deviation from the lowness in pitch, the distance and the diffusion of the normal vocal resonance, when the thoracic voice is raised in pitch, seemingly concentrated and near the ear. These characters are present when the voice is transmitted through solidified lung. Calling the sign distinguished by these characters bronchophony, it always denotes a certain degree of solidification of lung, if we except the so-called normal bronchophony sometimes found on the right side of the chest, and in rare instances on the left side, at the summit, over the extra-pulmonary bronchi in healthy persons. The abnormal sign is rarely wanting if the requisite degree of solidification of lung exist. It is not necessary, for the production of this sign, that the solidification be complete. It is obtained in pneumonia and other affections which involve solidification of lung, when the associated respiratory sign is not the bronchial, but the broncho vesicular respiration, and, of course, the normal bronchophony is heard over lung not solidified, its production being evidently due to the proximity of the large bronchial tubes. Observe that intensity of sound is not included among the distinctive characters of bronchophony. The voice may be either loud or weak. If the voice be concentrated, near the ear, and high in pitch, no matter how feeble the sound, it is not less bronchophony than if the sound were ever so loud, and the diagnostic significance is the same.

INCREASED VOCAL RESONANCE.

The vocal resonance may be abnormally loud, with no marked alteration either in concentration, nearness to the ear, or pitch. A simple increase of the resonance, therefore, it remaining low, distant, and diffused, is a vocal sign distinct from bronchophony, and which, as clinical observations in connection with examina-

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tions after death show, represents solidification of lung. The solidification thus represented is not sufficient in degree to give rise to bronchophony. Increased vocal resonance, as distinct from bronchophony, is also a cavernous sign. This statement is based exclusively on my own observations. If a cavity of considerable size be situated near the superficies of the lung, and not surrounded by solidified pulmonary structure, the vocal resonance is notably increased, and may be extremely intense, without the characters which are distinctive of bronchophony. The sign is often associated with cavernous respiration, and but rarely with amphoric respiration, the latter sign requiring solidified lung around the tuberculous cavity.

PECTORILOQUY.

Pectoriloquy, from its derivation, signifies thoracic *speech* as distinguished from thoracic *voice*, bronchophony having the latter signification. Strange to say, Laennec, who introduced these terms, did not employ them in accordance with this etymological distinction. His description of pectoriloquy embraced only the transmission of the voice. The confusion which has always existed, and still exists, in the use of the terms pectoriloquy and bronchophony, is readily and completely done away with by the use of these terms in the true etymological sense of each. Bronchophony should be considered as meaning transmission of the voice, together with the characters which are distinctive of that sign. Pectoriloquy should be limited to the transmission of speech, that is, of articulated words, through the chest.

With this definition, Is pectoriloquy to be rejected as a superfluous sign, as is done by Skoda? By no means. There is no sign better individualized than this. It is easy to decide, in any instance, whether or not the speech, that is, articulated words, is perceived. There is one liability to error, namely, the auscultator may hear the words from the mouth of the patient, and fancy that he hears them through the chest. In order to avoid this error, if immediate auscultation be employed or an uniaural stethoscope, the ear which is not to receive the chest sounds should be effectually closed. This, by the way, is a precaution to be observed in listening to any of the vocal signs. To make assurance doubly sure as to the existence of pectoriloquy, the auscultator should not know beforehand the words which the patient speaks. I have been accustomed to use this precaution in giving practical lessons in auscultation, and I have been led to notice that some persons seize much better than others, words transmitted through the chest.

Is pectoriloquy a cavernous sign? It is, and it is not. Articulated words may be transmitted through a pulmonary cavity. It is then purely a cavernous sign. They may be transmitted through solidified lung; it is then, of course, a sign not of a cavity, but of solidified lung. Now, is it practicable to determine clinically, whether the sign denotes a cavity or not? I answer in the affirmative. The discrimination is easy. If the thoracic voice which accompanies the pectoriloquy have the characters which are distinctive of bronchophony, the transmission of speech is through solidified lung. The two signs, pectoriloquy and bronchophony, are conjointly present. If, on the other hand, the bronchophonic characters are wanting, and the pectoriloquy is accompanied by merely an increased intensity of the transmitted voice, the transmission of speech is through a pulmonary cavity. The two signs, pectoriloquy and increased vocal resonance, are then conjoined. There is, therefore, a cavernous pectoriloquy, and there is a bronchophonic pectoriloquy, the differential characters being well marked and easy of recognition.

ÆGOPHONY.

Ægophony claims but a few remarks, not meaning to imply that it is a doubtful sign, as regards either its distinctive characters or its significance, but because, owing to correlative signs, it might easily be dispensed with in diagnosis. In fact, now when the exploratory puncture of the chest is employed in diagnosis without reserve, the auscultatory signs of pleuritic effusion are of much less practical importance than heretofore. Recently cases have been reported and papers published to show that, by means of the transmission of the whispered voice, it may be determined whether liquid within the pleural space be purulent or serous; but why waste time in observations and discussions relative to this point of inquiry, when by means of a hypodermic syringe in less than a minute the character of the liquid can be ascertained demonstratively?

It is a curious fact that in Laennec's treatise more than one-sixth of the portion of the work occupied with the consideration of the physical signs obtained by auscultation, is devoted to ægophony. In the greater part of this space, however, he discusses the mechanism of the sign. No one has found fault with or improved upon his description of the sign, and the name is well applied to it in certain instances, although the cry of the goat is less familiar to the people of this country than to the citizens of Paris. I believe that Laennec's interpretation of the sign is the true one, without regard to his views of the mechanism. The sign denotes a certain amount of pleuritic effusion. From Skoda's statement that he has heard ægophony in cases of simple pneumonia, I infer that either the pneumonia was accompanied by the requisite amount of liquid within the pleural space, or that he confounded ægophony with bronchophony. Analytically studied, ægophony has the same characters as bronchophony, minus the nearness to the ear, added to which is the tremulous or bleating quality. The sound is more or less distant from the ear, and is rarely accompanied by fremitus. I believe the sound to be essentially a bronchophonic voice, rendered more or less distant, the fremitus suppressed, the other modifications being due to its transmission through a stratum of liquid. Hence, the physical conditions for its production, in a case of pleurisy, are, the presence of a certain quantity of serous or purulent effusion, and condensation of a portion of the compressed lung sufficient to give rise to bronchophony. The latter condition is likely to exist with a moderate amount of effused liquid when the upper third of the lung is adherent to the chest wall by either recently exuded lymph or old adhesions, and the compressing force of the liquid as a consequence is brought to bear on the lower two-thirds of the lung.

I have repeatedly endeavored to connect bronchophony with ægophony by placing between the chest and the stethoscope an India-rubber bag containing varying quantities of liquid, in a situation where the bronchophonic voice was marked, in cases of pneumonia. The pitch, of course, is that of ægophony, and the voice is distant, but the tremulous, nasal, or bleating characters of the sign are wanting. The modifications expressed by these terms, therefore, depend on conditions not embraced in this experiment. Laennec attributed these modifications to flattening of the larger bronchi by the pressure of liquid, together with movements of the latter caused by the vibration of the lung. If this explanation be not satisfactory, it is certain that none better has been proposed. A bag of liquid interposed between the larynx and the stethoscope, occasions none of the characters of ægophony, and for a good reason, to wit, laryngophony is not bronchophony. The vocal sound from the larynx is characterized by intensity, concussion, and fremitus,

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without that elevation of pitch which is essential in order to render it bronchophonic.

Reverting to bronchophony and to increased vocal resonance, while the clinical significance of these important signs admits of no doubt, the mechanism of their production is open for discussion. Laennec considered that an essential element in the mechanism is a better conduction of sound by solidified than by healthy lung. Skoda's experiments prove the reverse of this. If the lungs be removed from the chest, after death from pneumonia, a lobe or more being completely solidified, and an assistant speak through a tube, the end of which is applied first to a solidified and afterward to a healthy lobe, it will be found on auscultation with the binaural stethoscope that the voice is conducted further by the healthy than by the solidified lung.[1] Other experiments referred to in my last lecture also show that lung containing more or less air within the alveoli conducts sound better than either solidified lung or portions of the liver. The same result obtains if the voice of the assistant be directed into the larynx or trachea, and the experimenter auscultate in alternation a healthy and solidified lung. Laennec's explanation of the mechanism is, therefore, not tenable. To meet the difficulty, Skoda resorted to the theory of consonance. The adequateness of this explanation has been sufficiently disproved, and I need not take any time for the discussion of it. Here, then, is an apparent incongruity between an acoustic fact and clinical experience. We must admit that healthy lung conducts sound better than solidified lung. *Per contra*, it cannot be doubted that the thoracic voice, in cases of disease, is often louder over solidified than over healthy lung. Observations during life conjoined with examinations after death prove this incontestably. Which, then, is to give way, the acoustic fact or clinical experience? I answer, neither the one nor the other is to give way. The incongruity is, if possible, to be removed. The acoustic fact is not, for an instant, to be considered as invalidating the significance of the signs. Their significance rests on clinical and autopsical data which are not to be put aside in consequence of any apparent antagonism by physical facts. It is certain that such an antagonism must be only apparent, not real, and the object of inquiry should be to reconcile the apparently antagonistic facts with the truths of clinical experience.

It is to be considered that we cannot artificially combine all the physical conditions involved in the thoracic voice of either disease or health, nor even by means of the lungs removed from the body. The difficulties connected with artificial respiration are such that this method of experimentation is entirely out of the question; but something can be done toward a reproduction of the vocal signs by transmitting the voice through the larynx or trachea into the lungs after death. The contrast in the degree of conduction when the voice is transmitted through the trachea or a primary bronchus into a solidified lobe, with the transmission when the end of the speaking tube is placed upon the surface of the same lobe, proves that in the former instance the sound is conducted, not exclusively by the lung substance, but by air within the pulmonary bronchi. The agency of air within the bronchi is also demonstrated by the following simple experiment: Insert the end of the speaking tube into the trachea, the lungs remaining attached, removed from the body and artificially inflated. The lungs of the calf or sheep will answer as well as those from the human subject. An assistant speaks into the tube, and the vocal resonance over the lung is obtained by means of the binaural stethoscope. Now, introduce a plug of cotton-wadding into the trachea, and compare the vocal resonance with that produced when the trachea is not thus obstructed. The intensity of the resonance is diminished, at least one-half, by plugging the trachea. The question, therefore, as to solidified or healthy lung being a better conductor of sound, has really not very much to do with the explanation of the well-established clinical truth that when the lung is solidified, often but not invariably, the thoracic voice is abnormally intensified. The explanation of this fact has more to do with the air contained within the bronchial tubes than with the solidification of lung. It is easy to account for the transmission of voice sounds from the larynx or trachea, as well as of the laryngeal and tracheal respiratory sounds, if we assume that a column of air extends into the bronchi within the lungs. We have only to instance the stethoscope and the speaking tubes in our houses, for familiar illustrations of the conduction of the voice by the medium of air contained in tubes.

The distinctive characters of bronchophony can be reproduced after death over solidified lung by speaking into the trachea. The voice, transmitted through a solidified lobe, the binaural stethoscope being applied to the lobe, is raised in pitch and near the ear, whereas it is diffused and comparatively distant when transmitted through a healthy lobe. An effect of solidification is thus to modify the vocal resonance as in life. I do not attempt to give an explanation of the manner in which these modifications are produced. The intensity of the thoracic voice, transmitted after death through a solidified lobe, is not increased; but increased intensity, as has been seen, is not to be considered an essential element of bronchophony. The bronchophonic voice may, or may not, be louder than the normal vocal resonance. But we have to inquire, why is it that bronchophony is ever more intense than the normal thoracic voice, and how is to be explained an abnormal increase of vocal resonance without the bronchophonic modifications whenever this is a sign of partial solidification of lung? The *rationale* must have to do with the air contained within the bronchial tubes. I submit the following explanation: Suppose a case of pneumonia in the second stage, one lobe, at least, being completely solidified. The solidified lobe is enlarged in volume nearly or quite to the limit of the expansion at the end of the inspiratory act. Its volume does not diminish with expiration, but remains the same in the inspiratory and the expiratory act. The respiratory movements on the affected side are more or less restricted. Now, the voice is produced by the breath in the act of expiration, that is, it is produced when the current of air is passing from the bronchial tubes of the healthy lung, in consequence of the diminution of the volume of this lung by the contraction of the thoracic space. It seems fair to assume that, under these circumstances, the bronchial tubes on the affected side contain more air than on the healthy side, and that there is less of a current of air in the expiratory act toward the trachea and larynx. Do not these points of difference account for a better conduction of the voice by air within the bronchial tubes on the affected side?

The following experiment has some bearing on this question: A hospital patient under my observation, died with acute pneumonia, the physical signs during life showing solidification of the entire left lung. In order to compare the transmission of the voice before and after the removal of the contents of the chest, the larynx was exposed and within it the end of the speaking tube inserted, the chest walls remaining intact. Blowing into the tube with the bellows and with the mouth produced over the upper solidified lobe a high-pitched tubular sound, and over the right upper lobe a

[1] Holden's resonator makes an excellent speaking tube in these experiments.

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vesicular murmur. Moist bronchial râles were heard on both sides, but their presence did not drown the tubular and the vesicular sounds. Speaking through the tube and auscultating with the binaural stethoscope, well-marked bronchophony was heard at the upper part of the chest on the left side, over the solidified lung, and on the healthy side, in the same situation, a resonance corresponding to the normal. The bronchophony, although well marked, was much less intense than during life. Exposing now the lungs, by removing the sternum, and applying the stethoscope upon the upper solidified lobe, bronchophony was still heard, but notably less marked than before the chest was opened. I infer from this comparison that the bronchi within the solidified lung when *in situ*, the chest unopened, contained more air than when exposed directly to atmospheric pressure. But in this experiment only one of the physical conditions underlying the thoracic voice in life is represented. The production of the voice with the current of air in expiration, and the thoracic respiratory movements are, of course, not included.

Granting that the explanation which has been given of an increased intensity of vocal resonance over solidified lobe or lobes in cases of pneumonia be satisfactory, it remains to endeavor to explain an increased intensity of the thoracic voice when the solidification is not sufficient to give rise to bronchophony; when, for example, in cases of phthisis, the increased resonance of the voice represents a greater or less number of tuberculous nodules. Here it cannot be said, in explanation, that the lung remains permanently expanded, nor that the movements of the chest are notably restricted. The bronchial tubes in the vicinity of the nodules may be dilated, but I am not prepared to state that this is the rule. It is intelligible that these tubes may be prevented from collapsing by the proximity of solidified nodules These physical conditions, however, seem hardly adequate to explain the sign. It is still more difficult to explain increase of vocal resonance when portions of lung are partially condensed by the pressure of liquid or an extrinsic tumor. There must be physical conditions involved which, as yet, are not understood. But, I repeat, to accept this conclusion is not to throw a shadow of doubt upon the diagnostic value of increased vocal resonance as a sign of solidification of lung, wherever associated with other signs denoting that condition.

The increase of vocal resonance over cavities is sufficiently intelligible. If a cavity be superficially seated; if it be not surrounded with lung completely or considerably solidified; if it be empty, and there be free communications with unobstructed bronchial tubes, we have a combination of physical conditions favoring the conduction of the voice, so as to give rise to more or less intensity of resonance, with fremitus, but without the modifications of bronchophony. In a lung removed from the body, this combination of physical conditions existing, notable intensity of vocal resonance, as distinct from bronchophony, may be produced by transmitting the voice into the trachea.

It did not occur to Laennec to study the thoracic sounds produced by the whispered voice. Many years ago, impressed with their value, I was led to institute a series of signs derived from this source. The sounds thus produced have, of course, characters corresponding to those belonging to the expiratory act in respiration; but they are brought out in stronger relief, and are better observed, in connection with whispered words. As these signs are correlative to those produced by the loud voice, it seemed appropriate to designate them by corresponding names. Whispering pectoriloquy was a term which had already been used. Applying to the sounds in health the name *normal bronchial whisper*, the morbid signs were named as follows: *Increased bronchial whisper*, *bronchophonic whisper*, *cavernous whisper*, *whispering pectoriloquy*, and *amphoric whisper*. The differential characters, following the same order in enumeration, are those of the expiratory sounds in broncho-vesicular respiration, bronchial respiration, cavernous respiration, pectoriloquy with the loud voice, and the amphoric voice. It would be superfluous, and therefore tedious, to enter into further description of these signs, and to consider more fully their significance. I would remark, however, that an abnormal increase of the bronchial whisper has often, in my experience, been of much service as one of the signs of incipient phthisis. But with reference to its significance in the diagnosis of that disease, it is essential to take into account the normal points of disparity between the two sides of the chest at the summit. In the infra-clavicular and in the interscapular regions, the normal whisper on the right side is louder than on the left side, but the pitch is a little higher on the left side. Consequently, if the whisper on the left side be louder than that on the right, or even equally loud, it is abnormal; and if the whisper be higher in pitch on the right side, it is abnormal.

Another practical remark relates to whispering pectoriloquy. Here, as with the loud voice, articulated words may be transmitted through solidified lung as well as through a cavity. Here, too, it is not less easy to determine in any instance whether the transmission be through solidified lung or through a cavity. If the pectoriloquy be associated with the characters of the bronchophonic whisper, it is the sign of solidification; but it is the sign of a cavity when associated with the characters of the cavernous whisper, that is, if it be low in pitch and non-tubular in quality.

CONCLUDING REMARKS.

Mr. President and Members of the Philadelphia County Medical Society: In concluding these lectures, I beg to recall the objects which were stated at the outset. I was desirous of showing that Auscultation and Percussion, divested of theories, speculations, non-essential discussions, and needless refinements, may be so simplified as to be made generally available in medical practice. The number of signs obtained by these two methods of physical exploration need not much exceed thirty. In a considerable proportion the characters of these signs are so plainly distinguished, that even their names suffice for a description and their recognition. I desired to show that in order to secure definiteness and clearness as regards the distinctive characters of different signs, and a ready differentiation of them, they must be studied by means of the analytical method. I cannot too strongly express my sense of the importance of relying upon this method of study for our practical knowledge of the signs obtained by auscultation and percussion. I have submitted, as I hope with becoming modesty, the fruits (if I may venture to use that term) of my own studies in this field of medicine for many years—studies relating to the distinctive character of signs, their significance, the introduction of some new signs, and the names by which they are to be designated.

Not ignoring the interest belonging to inquiries concerning the mechanism of the signs, I have entered in these lectures somewhat into a consideration of them in this aspect. My purpose has been chiefly to show that most of the more important of the signs may be produced out of the body, either by simple artificial means, or by using for this end the lungs, healthy and diseased, from the human subject and from inferior animals. The attention which I have of late given to the experimental illustrations to which I have referred, has led me to appreciate, more than hitherto, their usefulness, not only as explanatory of the mechanism

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of signs, but as affording valuable aid in teaching practically auscultation and percussion. The production of signs out of the body in the class-room, before bringing students to the bedside for the actual illustrations, must be of much service in facilitating the acquirement of practical knowledge of their distinctive characters, and I commend this exercise to the consideration of instructors in physical exploration.

I need not remind this audience of the inestimable value of the results of the inspired thought which prompted Laennec to improvise a stethoscope by rolling together a few quires of paper. Have these results, after half a century, reached their termination? Is nothing to be expected in the future, in the way of improved means of auscultation? Does the binaural instrument represent the perfection of stethoscopy? I trow not. When we reflect upon the recent development in practical acoustics, as exemplified by the telephone, the microphone, and the phonograph, may we not expect that some inventive genius will develop similar marvels in auscultation? Long before the time of Laennec, a quaint English writer uttered these *quasi* prophetic words: "Who knows but that one may discover the works performed in the several offices and shops of a man's body by the sounds they make, and thereby discover what instrument or engine is out of order." This prediction has been fulfilled. And now, after the manner of Robert Hook, who wrote in 1705, who knows but that the time may come, and perhaps ere long, when the only use of the stethoscope of to-day will be to illustrate, by contrast, an immense improvement in the means of discovering "the works performed in the several offices and shops of a man's body by the sounds they make?"

Treating, as I have done in these lectures, of auscultation and percussion in a purely didactic fashion, I have had to deal with dry topics, which must have been dull to those who have not felt any special interest in the subject. This was unavoidable. The consciousness of the fact enhances the thanks which, under any circumstance, would be due to those who have honored me with their attendance and attention. And in closing, as at the beginning, let me say that I could not adequately express my sense of the honor involved in the invitation to inaugurate a plan of annual lectures which, as I hope, will hereafter be committed to abler hands.

ORIGINAL ARTICLES.

THE MICROCOCCUS OF GONORRHŒAL PUS—INFECTIVE VIRULENCE NOT DUE TO THE PRESENCE OF THIS PARASITIC MICRO-ORGANISM.

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MODERN scientific research having demonstrated that a number of infectious diseases are due to the presence in the infective material—blood, etc.—and multiplication in the bodies of infected animals, of parasitic micro-organisms, having definite and distinct—*specific*—characters, it is not surprising that many physicians are inclined to make the generalization that all infectious diseases are parasitic, and it must be admitted that there is much to be said in favor of this hypothesis. A proper scientific conservatism, however, requires that the list shall be considerably extended before such a generalization can be considered safe; and it is evident that if a single infectious disease is shown to be independent of all micro-organisms, the generalization will be impossible, and the etiology of each specific disease of this class must be worked out separately.

But such a demonstration cannot rest upon negative evidence, for no one will venture to claim that failure to discover parasitic organisms in animal tissues and fluids is sufficient proof of their non-existence, especially since Koch's discovery of a bacillus in material which had previously been examined by numerous competent microscopists without success, at least so far as the demonstration of this particular organism is concerned.

On the other hand, a positive demonstration that infective virulence is due to something else than a living ferment, as, for example, to a peculiar albuminoid product elaborated in the body of an infected animal, would make the hypothesis of an undiscovered "formed ferment"—living organism—unnecessary and unreasonable; for we do not require two efficient causes to enable us to account for the same phenomenon. But I am not aware that such demonstration has been made in any one of the infectious diseases, and I have no evidence of this kind to offer in the case of gonorrhœa.

The question, then, as to the cause of the virulence of gonorrhœal pus remains exactly where I found it when I commenced the experimental study recorded in the following pages, for my researches show that—

The micrococcus which I have found in a certain number of the pus-cells in every specimen of gonorrhœal pus examined by me is an accidental parasite which has nothing to do with the special virulence of this fluid. And—*A careful search with a first-class objective* (Zeiss' 1–18 in.) *and by the use of staining reagents* (methyl violet and other aniline colors) *has not revealed the presence in this fluid of any other micro-organism than this micrococcus.*

This being the case, it may be thought that there is nothing more to be said. But it has seemed to me that a somewhat extended account of the experiments which have led me to the above-mentioned result may be useful in the present stage of inquiry (*a*) to substantiate the statement made, (*b*) to clear the way for others who may undertake a like investigation, and (*c*) more especially as a contribution to the study of micrococci.

My researches show that differences, morphological and physiological, exist among these lowly plants which make it possible to establish species, having characters quite as well defined as have many plants much higher in the scale.

This is in accordance with the views of Cohn and of Koch, and opposed to those of Billroth, Nägeli, and others, who consider all the bacteria as constituting a single species (Billroth), or at least but a small number of species, each including a variety of forms, designated micrococcus, bacterium, vibrio, etc. (Nägeli), which pass constantly the one into the other, being merely different phases in the life-history of the same plant.

That the life-history of some of the bacteria does include a variety of forms can not be questioned. Thus we have in the case of *bacillus anthracis* short rods, in the blood of an infected animal, which

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grow into long filaments, in a culture-fluid, in the interior of which are developed oval spores, which are afterwards set free, and might be mistaken for micrococci, but for the fact that they again develop into rods. The life-history of other species also includes a motile form. But there is nothing in such facts to preclude the idea that a large number of distinct species exist in nature, and a somewhat extended study has convinced me that such is the case. Many of these species have, possibly, been independent of each other, and rivals in the struggle for existence, from the earliest period of the earth's history. But as among higher plants, these lowly organisms are subject to variations as to size, rapidity of development, etc., due to circumstances relating to their environment—abundance and kind of pabulum, temperature, etc.; and we already have ample proof that varieties possessing different physiological characters may be produced by special methods of cultivation—attenuation of virus in anthrax and fowl-cholera (Pasteur). The fact that well-defined species do exist, even among the smallest and simplest of the bacteria, will be enforced in the present paper by contrasting two species of micrococcus, which the writer has had under almost daily observation for many months past, and which have been cultivated side by side, in hermetically sealed flasks,[1] without even seeing one form pass into the other, or either develop into anything else than a micrococcus.

One of these species is the micrococcus of gonorrhœal pus, which turns out to be *Micrococcus ureæ*, Cohn, and which has been shown to be the cause of the alkaline fermentation of urine (Pasteur).

The other is the micrococcus found in human saliva, which has been proved to be a pathogenetic species so far as rabbits are concerned.[2]

In my paper upon a fatal form of septicæmia in the rabbit, published in *Studies from Biological Laboratory Johns Hopkins University*, I devote considerable space to the morphology of the septic micrococcus which is also illustrated by photo-micrographs (heliotype prints); a photo-micrograph of the micrococcus of gonorrhœal pus is also introduced, and at the close of this paper is referred to in the following words.

"Fig. 5 is introduced to show that there are micrococci and *micrococci*. The species (?) here represented was obtained in the first instance from gonorrhœal pus. A little of this pus, obtained from a case of two weeks' duration, showed upon microscopical examination, in a few of the pus corpuscles, an invasion by micrococci, while the majority of the corpuscles, as well as the liquid in which they were suspended, were free from organisms. A culture-tube containing sterilized *bouillon* (from rabbit), was inoculated with a little of this pus, and an abundant development of micrococcus resulted. A second tube was inoculated from the first, and a third from the second. The organism was found in abundance in all of these solutions (kept in a culture-oven at 37° Cent.), unchanged in appearance and unmixed with any other forms of bacteria. One cubic centimetre of the liquid from culture No. 3, was injected under the skin of a small rabbit with an entirely negative result. It is evident, then, that physiologically, this micrococcus differs from the deadly septic micrococcus which we have been studying. . . .

The question will naturally be asked as to the possible relation of this organism to the peculiar virulence of gonorrhœal pus. I have not yet found time to study this question experimentally, but think it quite probable that this organism will be found to be identical with the micrococcus found in pus from other sources, *e. g.*, open wounds, inflamed mucous membranes, etc. Whether this common and widely distributed micrococcus is capable under special conditions of cultivation of developing into various pathogenetic micrococci; whether it is a distinct species from our septic micrococcus, or whether the latter is a pathogenetic variety developed from it, are questions which can only be settled by extended and painstaking experimental investigations."

The questions above suggested, I have since attempted to settle by the experimental method, and the object of the present paper is to place upon record the results of my researches.

These results may be summarized as follows:

(*a*) Microscopical examination of numerous specimens of gonorrhœal pus, from a number of cases, has demonstrated the constant presence of the micrococcus first observed in Baltimore in the summer of 1881.

(*b*) Upon inoculating a sterilized culture-fluid (beef-tea, or rabbit *bouillon*) with a small quantity of gonorrhœal pus at the moment of its escape from the meatus urinarius, and placing this in a culture-oven for a few hours, an abundant development of micrococci takes place.

(*c*) These micrococci present in all cases the same morphological characters, and no other micro-organisms than these make their appearance in a hermetically sealed culture-flask,[1] inoculated as above indicated.

(*d*) These micrococci, introduced beneath the skin of a rabbit, produce no noticeable result.

(*e*) Culture-fluids containing these micrococci introduced into the healthy male urethra do not give rise to specific urethritis, or to any other noticeable result.

(*f*) A culture-fluid containing this micrococcus, upon being added to acid urine recently passed and free from micro-organisms, causes it to undergo the alkaline fermentation.

(*g*) Urine which has spontaneously—that is, without resort to experimental inoculation—undergone alkaline fermentation, contains a micrococcus identical in appearance with that obtained by cultivation from gonorrhœal pus.

The deduction from these facts is evident. It has already been formulated, and is included in the title of the present paper.

[1] *Vide* paper in Studies from Biological Laboratory Johns Hopkins University, vol. ii., No. 2, p. 164, for methods employed.

[2] *Vide* papers by the present writer, National Board of Health Bulletin, April 30, 1881; also Studies from Biological Laboratory Johns Hopkins University, vol. ii., No. 2, p. 182; Philadelphia Medical Times, September 9, 1882; American Journal of the Medical Sciences, July, 1882, p. 69-76; Philadelphia Medical Times, 1882; also a paper by Dr. Claxton, Philadelphia Medical Times, July 17, 1882, p. 627.

[1] The writer's method of conducting culture-experiments is described in vol. ii., No. 2, of Studies from the Biological Laboratory Johns Hopkins University, p. 164.

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RECORD OF EXPERIMENTS.

At the outset of the investigation the idea naturally suggested itself that the question as to the possible causal relation of the micrococcus to the infective virulence of the fluid containing it, could best be answered by culture-experiments, carried far enough to exclude everything but the living organism, and by inoculation experiments upon susceptible animals.

The following experiments were therefore made with a view to ascertain whether the animals most easily obtainable for such a purpose were susceptible to the action of the virus.

Experiment No. 1 (May 6th).—Inoculated dog (male) in urethra and in right eye with gonorrhœal pus obtained from urethra of a patient in the post hospital, Fort Point San José. In this and the following experiments the pus was obtained from the urethra of the patient by means of a silver probe having a little cotton twisted about its extremity. This was then introduced into the urethra, conjunctival sac, or vagina of the animal experimented upon, and rotated vigorously to make sure that a portion of the pus was detached.

Result of above experiment entirely negative.

Experiment No. 2 (May 8th).— Inoculated female dog in right eye and vagina from same patient as in preceding experiment.

Result negative.

Experiment No. 3 (July 28th).—Inoculated puppy, two months old, in right eye and in vagina with gonorrhœal pus from a patient in post hospital.

Result negative.

Other experiments were made upon rabbits, but the notes have been mislaid. None of these experiments afforded any encouragement to the idea that the test could be made upon the lower animals, and I accordingly determined to seek an opportunity to make it upon man. My first efforts, by the offer of a bribe, to find a willing subject, were unsuccessful, but fortunately my friend, Prof. Hirschfelder, came to the rescue and offered to introduce my culture-fluids into the urethræ of certain patients in his wards in the San Francisco City and County Hospital. These patients consented to the operation with a full knowledge of the possible results, from a desire to please their doctor, and under the promise of speedy cure and a suitable recompense in case of successful inoculation.

The pus from which the cultures used in these experiments were started was taken from cases in the acute stage of the disease, and which had not been subjected to any local treatment.

Experiment No. 4 (July, 1882).—Made by Dr. Hirschfelder with material furnished by the writer. A culture-fluid, fifteenth, containing the micrococcus of gonorrhœal pus was introduced into the urethræ of three patients in the city and county hospital, upon small wads of cotton which were thoroughly moistened with the fluid and left *in situ* for fifteen minutes.

Case 1, J. D., has been in bed for about nine months; caries of the vertebræ.

Case 2, J. B., colored; syphilitic paralysis.

Case 3, D. M., in bed some time; aneurism of the abdominal aorta.

The result was entirely negative.

Experiment No. 5 (Aug.).—A fresh culture, fourteenth, from another, and recent case, was introduced in the same manner into the urethra of J. D., subject of previous experiment.

Result negative.

The culture-fluid, rabbit *bouillon*, used in the above experiments was neutral. In the following a slightly alkaline culture-fluid was used.

Experiment No. 6 (Aug.).—A fresh culture, thirteenth, was introduced into the urethra of W. B.

Result negative.

As already stated, the injection, in Baltimore, of one cubic centimetre of the third culture from gonorrhœal pus produced no perceptible result. This experiment I have since several times repeated.

Experiment No. 7 (June 10th).—Injected thirty minims of sixth culture from gonorrhœal pus beneath the skin of a small rabbit.

Result negative.

Experiment No. 8 (July 17th).—Injected thirty minims of second culture from gonorrhœal pus into subcutaneous connective tissue of small rabbit.

No result.

Experiment No. 9 (July 26th).—Injected ten minims of *sixth culture from blood of septicæmic rabbit* containing the septic micrococcus (Fig. 6) beneath the skin of the rabbit used in last experiment (No. 8). The animal died at 10 A. M., July 29th, and a microscopical examination made at once demonstrated the presence in the blood, and in the effused serum in subcutaneous connective tissue of the septic micrococcus in great abundance.

Remarks.—This experiment shows very plainly the difference between a pathogenetic micrococcus and one which is harmless. These organisms, although having distinct morphological characters (see Figs. 2 and 6), do not differ greatly in size, and both multiply freely in the culture-fluid used. This fluid, with the contained micrococci, proved to be innocuous in the dose of thirty minims in the one case, while one-third of this amount kills the same animal by reason of the presence of the other micrococcus in a subsequent experiment.

Experiment No. 10 (July 29th).—One drop of gonorrhœal pus from a recent case was introduced beneath the skin of a small rabbit.

Result negative.

This experiment is given for what it is worth. I have not yet had the opportunity to repeat it with a larger quantity of material.

The possibility that the micrococcus from gonorrhœal pus might acquire pathogenetic properties by being cultivated in blood-serum having occurred to me, the following experiment was made.

Experiment No. 11 (September 15th).—Injected ten minims of culture of micrococcus from gonorrhœal pus in blood-serum beneath the skin of a guinea-pig.

Result negative.

Remarks.—A single experiment of this kind has of course but little value, and I have not yet found time to follow up this line of inquiry. The question is however an important one, and well worthy of the attention of experimenters in this line of investigation. Here is a micrococcus which is harmless under ordinary circumstances. May it develop pathogenetic properties as the result of special conditions as to temperature, pabulum, etc., artificially maintained for a length of time, and in the course

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of successive generations produce a physiological variety having different vital reactions from those which marked the parent stock?

To test the question as to a possible local pathogenetic action of this micrococcus in an open wound, the following experiment was made.

Experiment No. 12 (August 4th).—An incised wound was made with scissors, removing a fragment of skin, upon each thigh of a half-grown rabbit. The wound upon right thigh was moistened with a culture-fluid (twentieth culture) containing the micrococcus from gonorrhœal pus. The wounds were then dressed with dry tow and a bandage applied. Both healed kindly without any undue inflammation, and no difference was observed between the two.

Remarks.—In the recent work on *Antiseptic Surgery*, by Watson Cheyne, the statement is made that micrococci, which, from his illustrations, may well be the same as these, are often found beneath the dressing in the discharges from wounds treated antiseptically, and that no harm seems to result from the presence of these micro-organisms, all of which shows that there are micrococci and *micrococci*.[1]

Having determined that the micrococcus of gonorrhœal pus does not give to this fluid its specific virulence, and having observed its morphological identity with the micrococcus found in urine undergoing alkaline fermentation (*Micrococcus ureæ*, Cohn), the next question was as to the functional or physiological identity. The following experiments establish this:

Experiment No. 13 (July 26th).—Acid urine, drawn from the bladder with precautions to prevent contamination with micro-organisms located at orifice of the urethra,[2] was inoculated with the eighteenth culture from gonorrhœal pus. The urine, in a hermetically sealed flask, was placed in the culture-oven, and the following day was found to be pervaded with micrococci in pairs (Fig. 2), and to be highly alkaline.

Experiment No. 14 (September 3d).—Urine was passed into a test-tube, sterilized by heat, the first flow being rejected (as this contains micro-organisms washed from the mouth of the urethra, *vide* paper above referred to), and was then divided into three portions in three sterilized tubes.

No. 1 was inoculated with the thirtieth culture from gonorrhœal pus.

No. 2 was inoculated with the ninth culture from urine which had spontaneously "broken drown"—alkaline fermentation—and which contained *Micrococcus ureæ* in abundance.

No. 3 was retained for comparison—*témoin*.

The urine was transparent and acid. The external air was excluded from the test-tubes by covering each one with a bit of sheet rubber tied fast about the neck. The tubes were placed in the culture-oven at 100° Fahrenheit, and the following morning Nos. 1 and 2 were found to be clouded, to be pervaded by the micrococcus, and to have an alkaline reaction. No. 3 remained transparent and acid.

Remarks.—I have made many other experiments of the same kind as those above given, but these will suffice to show (*a*) that the micrococcus of gonorrhœal pus causes urine to undergo alkaline fermentation; and (*b*) that it does this by virtue of its own vital activity, and not as a mere carrier of a chemical ferment present, in the first instance, in the gonorrhœal pus used to inoculate culture No. 1, for this hypothesis would require that such a ferment should be as active when diluted to an incredible degree (thirtieth culture) as when present in an appreciable amount—*e. g.*, in the first culture.

In my method of conducting culture-experiments the amount of material taken from one culture-tube to inoculate the sterilized *bouillon* in a similar tube, for the succeeding culture, is less than the fiftieth part of the contained fluid. The amount of dilution to which the original material, introduced into culture No. 1, was subjected in the above experiment may therefore be estimated by raising 50 to the thirtieth power. It is hardly necessary to introduce the array of figures which would result from this computation in order to convince the reader that the original material is practically excluded, and that only the remote descendants of the living organisms which were present in it are likely to be found in our thirtieth culture.

I may mention here, incidentally, that I have ascertained in the course of my experiments that *Micrococcus ureæ* is not the only organism which has the power of transforming urea into carbonate of ammonium—$CH_4N_2O + 2H_2O = (N.H_4)CO_3$.[1]

(To be continued.)

[1] I have not the work referred to at hand, and consequently cannot give the exact reference, but believe that my memory is not at fault with reference to the statement made.

[2] *Vide* paper by writer in Studies from Biological Laboratory, *loc. cit.*, p. 177.

[1] Schutzenberger, Fermentation. D. Appleton & Co., New York, 1879, p. 203.

WHEN IS A PHYSICIAN LEGALLY EXEMPT FROM TESTIFYING TO CONFIDENTIAL COMMUNICATIONS MADE TO HIM BY HIS PATIENT?

BY FRANCIS W. SHAIN, M.D.,
OF PHILADELPHIA.

WHAT is a confidential communication or privileged communication in the eye of the law? It is a communication made *bonâ fide*, upon any subject-matter in which the party communicating has an interest, or in reference to which he has a duty, and as the occasion is an absolute privilege, the only questions are whether the occasion existed, and whether the matter complained of was pertinent to the occasion.

In a degree, the law extends this privilege to the lawyer, clergyman, and physician—but not equally, and this we would like to see remedied.

At common law such privileged communication extends only to the lawyer, and naturally, as the profession constantly brought into relation with the accused; it was conceded on the ground of public policy, because greater mischief would probably result from the requiring or permitting of such testimony than from wholly rejecting it; and further, as a fundamental right for the sole and exclusive protection of the client either in person or property, by whom and through whom the obligation can only be removed. It is made perpetual. Does not end or cease with the completion of any par-

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ticular business, the seal of the law once fixed remains forever; and it is generally comprehensive, as implied in the language of the distinguished jurist, Lord Chancellor Brougham: "If the privilege were confined to communications connected with suits, begun, or intended, or expected, or apprehended, no one could safely adopt such precautions as might eventually render any proceedings successful, or all proceedings superfluous." To the lawyer, therefore, by the common law the privilege is universal.

What is the position of a clergyman in this respect? Is he or is he not exempt from testifying to communications made to him in his professional capacity? This question has been the subject of a warm debate on the ground of conscience and general good to society, in that the guilty conscience may unfold itself, and ask for spiritual advice and guidance, and to seek pardon and relief.

The law of Papal Rome has declared that such communications are privileged, and has gone so far as to punish her priests who reveal them, holding to her unchanging doctrine that the confessions are not made to the priest as a man, but in his professional character as the representative of the Deity. In Scotland, if a prisoner confesses his crimes to a clergyman in order to receive spiritual advice, the clergyman is not required to give such communications in evidence.

The English law encourages a penitent to confess his sins for the purpose of unloading his conscience; the clergyman is only exempt from presenting his penitent to the civil magistracy (that is not to turn State's evidence voluntarily) "under pain of irregularity," but must make a full and perfect statement of the communication or confession so received by him in his professional character, whenever required by the law so to do, as it made no distinction between clergymen and laymen. The citizens of New York, through their legislature, passed a statute which has forever, as far as they are concerned, set this vexed question at rest. It is as follows: "No minister of the gospel, or priest of any denomination whatsoever, shall he allowed to disclose any confessions made to him in his professional character, in the course of discipline enjoined by the rules or practice of such denomination." (2 *Revised Statutes*, page 406, § 72.) The Courts of New York have held to the principles of this statute whenever required or requested so to do. It is a pleasing fact to notice that the same protection has been accorded to penitents and clergymen in the following States: Missouri (*Revised Statute* 1845, c. 186, § 19; Wisconsin (*Revised Statute* 1849, c. 98, § 75); Michigan (*Revised Statute* 1846, c. 102, § 80); and in Iowa (*Code* 1851, art. 2393). In States other than those above mentioned the common law principles prevail.

In regard to the communications between a physician and his patient:

The physician under the common law has no status granting privileged communications, nor can the common law be subject to amendment; relief must therefore be looked for by statute law, granted by the legislatures of the respective States.

In several States such statutes now exist, almost rendering unnecessary an argument to prove the right and propriety of extending the privilege to physicians.

The Legislature of the State of New York comes to the relief of the citizen while living, and to his reputation when dead, by a statute of the following character, viz:

"No person, duly authorized to practise physic or surgery shall be allowed to disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon." (*Revised Statutes* New York, vol. ii. page 406, § 73.)

The following named States have likewise passed statutes to the same effect: Missouri, Wisconsin, Michigan, and Iowa; but five States in the United States have conceded this wise privilege.

The Courts of New York have been called on for an interpretation of this statute in the only two ways in which such a statute could by any possibility bar justice.

The first was in the case of Hewett *vs.* Prime (21 Wend., page 79), where the Court held that a consultation as to the means of procuring abortion in another is not privileged by the statute; that if A should apply to a physician for a prescription for B who was pregnant, or as to the use of instruments or drugs on the person of B, such communication is not privileged, and the physician would be obliged to testify to the fact.

The second was in the case of Johnson *vs.* Johnson (14 Wend., page 637), in which the Court held the patient himself may waive this privilege, and the physician could then testify, as the privilege, said the chief-justice, was the patient's and not the physician's. He considered it analogous to an attorney and client in this respect; but no statute touching this question exists in Pennsylvania, and in bringing the subject to the attention of the physicians of this Commonwealth, it may be well to cite some illustrative cases, showing the importance to the citizen that he should be able to state the "whole truth" to his medical adviser without apprehension of self-commitment.

An erring and unfortunate citizen presents himself to his physician with a sore upon his genital organs or elsewhere, obscured by previous treatment; and, by a candid confession of exposure, he aids in the diagnosis of syphilis, and is at once properly treated; to his own great advantage, and to the protection of his wife or others from contamination, and so far restraining the spread of this loathsome and grave disease. Now, if this citizen was familiar with the fact that his medical attendant could be compelled in court to convict him of adultery or any other crime arising from illicit intercourse, he would hesitate to take counsel, to his own destruction and to the detriment of public policy.

Again, a man in attempting a burglary, is met by an excited and outraged opponent who strikes to kill, and receives a blow in the temporal region. There exists really a fracture of the bone and

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laceration of the middle meningeal artery. The real condition is obscured by the swelling of the superficial tissues, and the patient knowing he must not commit his story of crime to the physician, and not feeling the gravity of the injury, tells the story of being struck by a snow-ball, or by a fall or some such slight cause; the physician is misled, and hours afterwards the patient dies from hemorrhagic compression of the brain. Had the whole trouble been told to the physician, knowing the provocation and probable force of the blow, his investigation would have been more thorough, he would have kept the patient under observation and been able to give him the hope of a trephining operation. Other cases suggest themselves, but these are sufficient to illustrate how necessary it may be for the patient to tell his story unreservedly and without fear to his medical adviser.

Such is the history of the law of the present day, and we trust its presentation will awaken the medical profession to take such action as may secure the passage of a similar statute in Pennsylvania, and indeed in every State in the Union.

HOSPITAL NOTES.

PENNSYLVANIA HOSPITAL.

(Service of DR. J. M. DA COSTA.)

A CASE OF DIABETES INSIPIDUS TREATED SUCCESSFULLY BY ERGOTIN.

(Reported by FRANK WOODBURY, M.D.)

THE following clinical note is worthy of record, not merely as furnishing an instance of the successful treatment of a disorder which had resisted many remedies during a long course of hospital treatment, but also because of the history of the acute beginning, and the progressively downward tendency of a purely functional (vaso-motor?) disease; unaccompanied, so far as could be ascertained, by organic lesions at any stage of its development. The treatment of diabetes insipidus by ergot is, of course, no longer a novelty; but it is still of interest to add an additional case to those already reported by Dr. Da Costa in THE NEWS (Jan. 7, 1882), where a discussion of the therapeutic method may be found.

Charles L., 28 years of age, born in Ireland, a farm laborer, was admitted August 14, 1882, into the ward under the charge of Dr. Arthur V. Meigs.

An interesting point in his family history which was elicited, was a possible hereditary tendency to renal disorder—his father had died of dropsy about three months before the patient's birth. His own health was usually good; he has served in the British army for three years; and had been in this country for eight years. He had spent the most of his time here in living on a farm, but had never had ague nor an attack of rheumatism. He acknowledged having had gonorrhœa, from which, however, he had entirely recovered; but he positively denied all other venereal infection. He never had received an injury or blow upon the head, nor a severe fall; he was equally positive on this point. In August, 1881, while in his ordinary health, he was working hard upon a farm, where he was exposed to cold and wet. About this time he stated that he had come into the city to buy a summer suit of clothing, which he wore on his return to the country; the clothes were thin, and on his way home the weather changed, and a cold rain commenced to fall, so that he became wet through before he reached there. The next day he felt as if he had taken a severe cold; he was dull and heavy; he had irregular chilly sensations and aching in his bones, which obliged him to remain in the house. Shortly after this, within the week, he noticed that he was passing more water, and that he had to rise several times in the night; he stated, however, that the aggregate quantity passed each day then, though more than normal, was not so great as it was a month later.

The malady continued; he urinated frequently, and was very thirsty all the time. In September, he was so ill that he was sent to the Philadelphia Hospital, where he remained under treatment for two months; then becoming dissatisfied, he left the institution, as he said, "worse than when he went in." He then sought admission into a hospital at Trenton, where for ten months he received medical care, but still he got worse rather than better, and as they had given him up to die, he left there, though very sick at the time and reduced almost to a skeleton. In this miserable condition he was found at the gate of the Pennsylvania Hospital about two weeks after leaving Trenton, and was taken at once into the ward. He was so very weak that, although he was passing eight pints of water *per diem*, it was thought better to give restoratives for a time before attempting to place him upon special treatment for diabetes insipidus. His urine, which was repeatedly examined, had a specific gravity of 1010, it was faintly acid in reaction, almost colorless, and was perfectly free from sugar and albumen. At the time the disorder was at its beginning, in September, 1881, he passed eight pints of urine, and again in January, 1882, he had passed a like quantity, as also he had after entering the ward, but he had never exceeded this to the best of his knowledge. Tincture of chloride of iron, quinine, and nux vomica, were given in succession for a short time, and with these, aided by a diet of milk and eggs and a small amount of stimulants, he revived considerably. In the course of a week after coming into the ward Dr. Arthur V. Meigs began the administration of ergot, of which twenty minims of the fluid extract were given three times a day. He took this small quantity for more than a month, but as it did not have any apparent effect upon the amount of the urine, it was stopped September 19th. No more ergot was given until October 17th, when the administration of ergotin hypodermically was begun; he at first received daily one injection, and afterwards two, of five grains (dissolved in fifteen minims of a solution of equal parts glycerine and water), therefore much larger doses than before. The effect of this treatment was promptly manifested. Under its use the urine had decreased to four pints by the end of the month; but on the remedy being then suspended for a few days, it increased again to six pints. He had greatly improved by October 30th. He had gained eleven pounds in weight in two weeks, his skin was not dry and harsh, he ate and slept well, and although he had been very thirsty before, he was much less so since he had been under the ergotin treatment. He still felt very weak, and was obliged to remain in bed, but his improvement was very manifest.

At this time the ward passed under the care of Dr. Da Costa, who decided to keep up the treatment, only giving the remedy by the mouth instead of hypodermically. The punctures had not given rise to abscesses, but the spots were tender and painful for a time after each injection.

On November 4th he had passed six pints during the preceding twenty-four hours. Five grains of ergotin, using the same solution, were now directed to be given by the mouth, morning and evening, and the succeed-

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ing day the quantity of urine was again reduced to only four and a half pints. On November 6th the ergotin was directed to be given three times a day. The next day he was allowed to get out of bed; but as a result, he was not feeling so well on November 8th, and was passing five pints. As he complained of indigestion he was allowed to have a drachm of the compound tincture of gentian before meals, the ergotine being continued. After this he steadily improved: it was noted on the 13th, that "for the last three days the urine has measured three and a half pints daily." The tincture of cascarilla was now substituted for the gentian, as the later did not agree with his stomach. On the 16th, the man was brought before the class; he was still passing three and a half pints; the ergotine was now increased to four doses daily, his general strength and physical appearance had very greatly improved. On the 19th, the remedy was reduced one-half, and the next day discontinued entirely. The cascarilla was continued for a few days longer, but on the 24th strychnia (gr: $\frac{1}{60}$) was given in its place. The urine now ranged between three and three and a half pints daily, and he only occasionally had to rise at night. On the 21st of November, he took a long walk outside of the hospital, but there was no increase in the amount of the urine in consequence, and he slept better that night. As he was anxious to be discharged, he was detained but a few days longer under observation, and was allowed to go on the 30th, when he was apparently strong and well. While under the ergotin treatment he reported that he gained in six weeks the surprising amount of thirty-two pounds in body weight; he weighed in the middle of October but 126 pounds, when he was discharged he weighed in the same clothing 158 pounds, and appeared in sound, vigorous health. He considered that the treatment had saved his life.

MEDICAL PROGRESS.

THE TREATMENT OF PUERPERAL ECLAMPSIA WITH CHLORAL IN LARGE DOSES.—DR. GEORGE ROCHÉ reports a case of puerperal eclampsia occurring in a woman, aged 21, in the eighth month of pregnancy; the face was œdematous, and the urine loaded with albumen. The patient was first bled, cold compresses applied to the head, inhalations of chloroform and ether administered, and rectal injections of chloral in doses of 60 grains—in all 470 grains of chloral were given in 24 hours. Recovery took place.—*L' Union Méd.*, November 28, 1882.

FORTY INCHES OF BOWEL PASSED PER RECTUM, WITH RECOVERY.—At the meeting of the Baltimore Academy of Medicine, held December 5, 1882, Dr. CHRISTOPHER JOHNSTON exhibited a specimen of forty inches of intestine passed by a lady in Charles County, Maryland, per rectum. The patient was thirty-two years of age, married, and had one child about four years old; her health had always been delicate, and she had been subject to indigestion, constipation, and colic pains. The attack during which the present specimen was passed began with acute epigastric pain, at first supposed to be due to cramp colic. There had been no action from the bowels for six or seven days, and a circumscribed hardness could be easily felt through the abdominal parietes. After three days, stercoraceous vomiting set in, and continued three or four days; it was accompanied by some relief. At the end of the three or four days the sphacelated bowel, together with some of the omentum, was passed, followed by loose operations. Part of the specimen retained its tubular shape, and contained feces; another part passed mixed with feces. The prostration during the attack was very great, and death seemed imminent. She began to improve slowly, and to regain her appetite after the discharge of the bowel, but had still occasional pains in the bowels, especially in connection with her evacuations. Six weeks after the attack she was able to sit up a little, and though still feeble, was cheerful, and expressed herself as feeling very well. The treatment pursued was cathartics, enemata, inflation, anodynes, etc.—*Maryland Medical Journal*, January 1, 1883.

EXTRACTION OF A CATARACT WITHOUT EXCISION OF THE IRIS.—At the meeting of the Société de Chirurgie, held November 22d, M. GALEZOWSKI read a paper in which he urged the advantages of abandoning the incision of the iris in the extraction of cataract. He thinks that iridectomy does not prevent inflammatory accidents, and that it predisposes to secondary cataract. M. Galezowski advises making an ellipsoidal flap, making the incision at the edge of the sclerotic. In forty operations made without iridectomy since the month of July, he has had no ocular phlegmons. Iridectomy is, however, indispensable if the iris falls spontaneously under the knife, if there is posterior synechia, or if the border of the iris has been contused during the operation.—*Gaz. Hebdom.*, Dec. 1, 1882.

DISSEMINATED POLYPI OF COLON.—At the meeting of the London Pathological Society held Dec. 19, 1882, a specimen of diffused polypoid growth of the colon was shown by MR. BOWLBY. The case differed from others of the same kind in the absence of constriction of the intestine. The growths extended from the cæcum to the sigmoid flexure; the polypi had long pedicles, and consisted of fibrous tissue, covered by normal mucous membrane. He also showed a specimen of large polypoid growth of the rectum, removed by operation from a young woman; it was attached to the wall of the rectum, and was extruded from the anus during an effort at defecation; it had given rise to no symptoms. Mr. Bowlby also exhibited a specimen of polypus of the small intestine. The patient was a child, who suddenly experienced severe pain in the abdomen; when admitted into St. Bartholomew's Hospital the vermiform appendix and cæcum protruded as a gangrenous mass from the anus. The child died subsequently of congenital syphilis, and at the post-mortem examination it was found that there was some limited peritonitis of old standing, and a large polypus of the small intestine; the whole of the colon was absent, having apparently sloughed away; about three inches and a half above the anus was a constriction, which appeared to mark the point where the continuity of the gut was re-established.—*British Medical Journal*, December 23, 1882.

TREATMENT OF TYPHOID FEVER WITH CARBOLIZED CAMPHOR.—M. DUJARDIN-BEAUMETZ recommends the treatment of ataxic forms of typhoid fever with carbolized camphor. His mode of administration is by the rectum, in the form of injections, with 1 gramme of camphor to 5 decigrammes of crystallized carbolic acid, dissolved in 30 grammes of alcohol and 170 grammes of water. He claims the constant result of these drugs in low forms of typhoid fever has been a reduction of the fever and the disappearance of the nervous symptoms.—*Bull. Gén. de Thérap.*, November 30, 1882.

EXTIRPATION OF THE SPLEEN.—D. G. ZESAS extirpated the spleen in six rabbits under antiseptic precautions, and all recovered. The autopsies showed that there was in all cases an increase in size of the

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liver and lymphatic glands, the increase being proportional to the time elapsing between the operation and the death of the animal. Two examinations of the blood, four and eight weeks after the extirpations, showed that at first the red corpuscles and then the white were diminished in number.—*Centralb. f. die med. Wissen.*, Dec. 2, 1882.

OXYGEN AND DISEASE GERMS.—Mr. F. J. Faraday calls attention in the *Times* to certain remarkable facts communicated by M. Pasteur to the recent Hygienic Congress at Geneva. Starting with the suggestion by Dr. William Roberts, F.R.S., that disease germs might be "spores" from harmless saprophytes which had acquired a parasitic habit, it has been argued that such "spores" might be developed by cultivation in the presence of noxious gases, or in confined places in which the proportion of free oxygen present in good air did not exist. The hypothesis has been specially applied to the evolution of the tubercle bacillus, but it is obvious that it is equally applicable to the evolution of the germs of other diseases, such as typhoid fever. The process described by M. Pasteur at Geneva, as having enabled him to convert the virus of the form of typhoid fever which caused great mortality among horses last year in Paris into its own vaccine, has a noteworthy bearing upon this hypothesis. M. Pasteur first tried to "attenuate" the virus by cultivating the specific microbe, which he had already discovered as associated with the disease, in contact with air. But experiments showed that the culture retained its fatal attributes for a certain period, when it suddenly became absolutely sterile, or, in other words, the microbe died. M. Pasteur then adopted a method which can only be described as a process of nursing the microbe, so as gradually to adapt it to a new mode of life, or, in other words, to modify it without destroying its fertility. Taking a virulent culture from the blood of a rabbit which, through inoculation, had died of the disease, he sowed fresh portions of this culture in veal broth on successive days, and kept the series in contact with air. He had thus a graduated series of cultures from virulent stock in process, each of these cultures having been subjected to the modifying influence of oxygen for a different period. M. Pasteur was thus able to seize the moment when the culture which had been exposed the longest to aeration became sterile, and to select a culture on the eve of sterility, which he transferred to a fresh infusion already found to be specially suitable to the microbes, and which consisted of two parts of veal broth with one part of pure rabbit's blood. Having, in fact, reduced the microbe to the verge of sterility, or death, he subjected it at this critical moment to an invigorating regimen, and thus protracted its vitality and made it the stock of a new series of cultures. By repeating this process again and again in all its details, M. Pasteur ultimately evolved a race capable of serving as the vaccine of the original virus, oxygen having been the modifying influence throughout.

There is a striking analogy between the treatment thus described and that by means of which, about six years ago, Fräulein Marie von Chauvin evolved *amblystoma*, a land salamander, from the water-breathing Mexican axolotl. She selected healthy animals, and first kept them in shallow water, so that they were not quite covered by the water. When their health declined she restored them to deep water. Gradually she accustomed them to shallow water, and eventually kept them on land in deep moss. She was obliged to force them to eat by compelling earth-worms to wriggle down their throats; and feeding them well at the critical stage of metamorphosis seems to have been the main condition of success. When the change from gills to lungs was perfected, they fed themselves with avidity. But Nature herself, notwithstanding the difficulties experienced by Fräulein von Chauvin in transforming her axolotl (some of which died under the treatment), apparently succeeds sometimes in evolving *amblystoma* from the Mexican newt; therefore, assuming the variability of specific microbes under the influence of oxygen, there is nothing unusual in the idea of the parasitic germs of epidemics being spontaneously evolved from harmless saprophytes under peculiar conditions of culture, such as the presence of various gases instead of free oxygen. In that case, ill-ventilated sewers, stagnant pools, and other places where aeration is not efficiently carried on, may continually evolve new crops of specific disease germs. Moreover, no embryologist will object to the attribution of the characteristics of species to the infinitely little, and the resistance to retransformation under artificial conditions displayed by M. Pasteur's typhoid microbe is only what we might expect, on the assumption that it is a confirmed new species. Fräulein von Chauvin's axolotls had to be forced to eat under the new conditions which she provided for them, and they would certainly have died if they had been left to themselves.

The behavior of M. Pasteur's typhoid microbe, which retained its specific or virulent character even under the influence of oxygen, until it suddenly died, is singularly like that of the axolotls. Does it not also explain the often sudden disappearance of epidemics? The typhoid germs, having acquired a parasitic or virulent habit, say in the sewer, are conveyed to the bodies of human beings. Though subsequently exposed even to the abundant oxygen of a healthy locality, they resist its influence for a certain period, spreading death meanwhile, and then, under the influence of sanitary conditions, they suddenly become sterile and the epidemic disappears.—*Knowledge*, October 13, 1882.

EXTIRPATION OF THE SUB-ORBITAL NERVE.—At the meeting of the Société de Chirurgie held Nov. 29, M. POZZI read a memoir by M. BLUM on this subject. A woman, aged 68 years, had for two weeks suffered from severe neuralgia of the left side of the face; all treatment proved unavailing, even the extraction of all the teeth of the upper jaw. M. Blum therefore cut down upon the sub-orbital nerve and tore it out; the pain then ceased, and has not returned. M. Pozzi states that this procedure has only been employed in three instances; one was followed by cure, and the other two were unsuccessful in relieving the pain.—*Gaz. Hebdomadaire*, Dec. 8, 1882.

SUBCUTANEOUS INJECTION OF ETHER IN IMMINENT DEATH FROM HEMORRHAGE.—At a meeting of the French Academy of Medicine, held December 19, 1882, DR. HAYEM read a paper with the above title, of which the following is an abstract. When a dog has been bled to the extent of causing convulsions, and death is imminent, injections of ether are of no service: transfusion of blood may, however, in such cases save the animal's life. The results of the subcutaneous injection of ether are also negative when an amount of blood equal to one-nineteenth the weight of the animal has been withdrawn and the animal brought into a condition where the chances for life or death are about equal. In this state also, life may be assured by transfusion or the injection of serum obtained from blood of an animal of the same species. These results show that transfusion cannot be replaced by the stimulant effects due to subcutaneous injection of ether, which only increases the number and vigor of the heart's pulsations, and does not augment the blood-pressure or rectal temperature.—*L'Union Médicale*, December 21, 1882.

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SATURDAY, JANUARY 20, 1883.

RESECTION OF THE TARSUS FOR INVETERATE CLUB-FOOT.

ESPECIALLY in the treatment of deformities, osseous surgery, if we may so designate it, has made rapid progress during the last ten years, and operations formerly unthought of, or deemed inadmissible, are now of frequent occurrence.

As a rule, club-foot is amenable to less heroic measures than bony resection, but occasionally cases occur that resist all other modes of treatment, and so long ago as 1853 Little proposed, and in 1854 Solly performed, an excision of the cuboid. Since 1874, however, chiefly owing to the operations of R. Davy and E. Reid, the systematic resection of portions of the tarsus have been undertaken. But while in England and Germany the operation has been known and accepted, in France and in this country but little has been done. Erskine Mason, Stephen Smith, Porter, Bradford, and other American surgeons, however, have done a few operations.

In the *Archives Générales*, we find an excellent paper on these operations by CHAUVEL, of Val-de-Grâce, which well repays perusal. Three different methods exist. In the first or "anterior," the cuboid only is removed; in the second or "posterior," chiefly or wholly the astragalus, and in the third, or "total cuneiform resections," a wedge-shaped piece is removed, involving chiefly the cuboid and its neighboring bones, but extending, if need be, even to the inner border of the foot, though in ankylosis Reid has applied it to the ankle proper.

The first operation has been done, according to the statistics of Chauvel, eight times on six patients. Recovery has followed in all cases. The immediate results have been good, but the ultimate results were satisfactory in only one-half of the cases.

The second operation was done thirteen times; six of these were resections of the astragalus and bones of the leg in wedge-shaped pieces, followed by six successful ankyloses; seven were resections of the astragalus, either alone or combined with removal of the external malleolus, followed by two definite successes, four cases in doubt, and one bad result.

The third method was practised thirty-seven times. Three deaths resulted, one on the tenth day from an old cardiac valvular insufficiency with recent endocarditis, one from hospital gangrene, and the third from septicæmia. The operation should be held responsible only in part for the first two. Of the ultimate results in the thirty-four cases that recovered, in twenty-four it was satisfactory, and in ten undetermined, some of which certainly would have been counted among the successes.

The deformities to which the operations are applicable are otherwise incurable varus, equino-varus, and equinus. In varus and equino-varus undoubtedly the total cunieform resection is the best operation, and has been oftenest done. Removal of the cuboid only has deservedly met with but little favor. If the case be one of pure varus, the wedge has its base at the cuboid, the width of the base and the length of the wedge being proportioned to the degree of the deformity to be corrected, and without special regard to the articular surfaces of the cuboid or other bones involved. Indeed it is less important that exactly this or that bone be removed than that the wedge be well placed, and of proper size. Not seldom indeed more than one subsequent slice has to be taken off the bone, in order to obtain good apposition of the bony surfaces. In equino-varus the excised portion must be wedge-shaped in two ways—(*a*) the base as before at the cuboid externally, and apex internally to correct the varus, and (*b*) the base above and apex towards the sole to correct the equinus. In equinus proper, the anterior operation or resection of the cuboid, and the total cuneiform method will not remedy the deformity so well as the posterior operation at the ankle-joint. This should consist not so much in the removal of the astragalus or of the astragalus and external malleolus, as of a wedge-shaped piece or pieces involving both the upper and lower articular surfaces of the ankle of such size and shape as to correct the deformity, or a wedge-shaped piece may be removed just in front of the joint involving the head and neck of the astragalus, and the calcaneum if necessary.

So far as possible these operations should be subperiosteal and antiseptic. Because they are deliberate and designed, they are none the less severe

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compound fractures, involving also, in most cases, the neighboring articulations, and in the part of the body most distant from the centres of nutrition. Hence, every possible precaution must be taken to insure the least risk and the quickest healing. This at best, if we obtain bony union, must be slow, and cover some weeks or even months.

The operative procedure is simple. The incisions in ⊥ or ⊥ at suitable places and of suitable length give easy access to the bones. The saw may be used, but the chisel and bone-forceps are preferable, and in children a stout cartilage knife will often suffice. The arteries are well known and avoidable, and serious hemorrhage is rare. The dorsal tendons and, also, especially that of the peroneus longus should be carefully preserved. Tenotomy will be required occasionally, either at the time of the operation or subsequently. Antiseptic dressings and a suitable splint, with a foot-piece, are to be immediately applied. The splint in some form or other, according to the preference of the particular surgeon, is indispensable in order to retain the foot in its proper position.

If the results have been so good in these the earlier operations, we have every reason to believe that still better are in store for us within the next decade. American surgeons certainly should not be behind in working out so favorable a result.

BACILLUS LEPRÆ.

AMONG the infectious diseases which have recently been ascribed to a micro-organism is leprosy. A close examination of the studies which have from time to time been made upon the *bacillus lepræ* show a better foundation for such a view than would at first be expected, though the same examination will also show that the evidence in its favor is much weaker than in the case of the *bacillus malariæ*.

The first observations on this subject appear to have been made in 1873, by Dr. G. A. Hansen, of Bergen, Norway, and published in *Norsk. Mag. f. Lægevidensk*, 1874, and more fully in *Virchow's Archiv* for January, 1880. He found constantly in the nodules of leprosy, both rod-shaped and granular bacteria, enclosed in certain brown-colored cells.

Dr. Albert Neisser, then of Breslau, now of Leipzig, extended these observations of Hansen's in a study of leprosy pursued in Granada in the winter of 1880–81, employing, for the first time, the staining methods of Weigert and Koch. Neisser claims to have been the first to declare that there exists in leprosy a specific form of bacteria which is the direct *cause* of the disease, while Hansen had originally merely suggested that such relation might exist. Neisser also made a culture of the bacillus.

In May, 1881, Dr. I. Bermann, of Baltimore, succeeded in demonstrating the bacillus lepræ in the "lepra cells" in sections of skin removed from a leprous patient. Recently (Dec., 1882) Hansen has published another paper in *Virchow's Archiv*, confirming and extending his original results by culture experiments. The names of Klebs and Ecklund have also been associated with studies on *bacillus lepræ*.

The *bacillus lepræ* is a peculiar one, being very attenuated and further characterized by black dot-like nodosities, sometimes at one end, at others at both, while sometimes there are found two or three intermediate dots, in which event the bacillus is always longer. These granules have probably something to do with spore formation, and may entirely replace the bacilli, which then appear to break up into them.

As to their occurrence, the bacilli, at least in the tuberculous form of leprosy, are found wherever the leprous productions occur, be they recent or old. This is especially true in the nodules of the external integument. Hansen has never seen the involvement of the liver, spleen, testicle, lymphatic glands, and nerves in its early stage; but when he has found these organs diseased, the bacilli were present in them. Nor has he ever seen the latter in the blood, though Köbner claims to have found them there in his patient. Nor did Hansen find the bacilli in the anæsthetic form of the disease, although his opportunities for the study of these have been limited.

An important link in the argument is, however, wanting, in that none of the attempts at inoculating leprosy in the lower animals, either by the introduction of pieces of leprous tissue or by the injection of the culture fluid swarming with bacilli, have been successful. It is true, Neisser claims to have communicated leprosy to dogs by inoculation, but both Köbner and Hansen, who acknowledge to have themselves failed to inoculate monkeys, consider Neisser's results doubtful and unsatisfactory. Of course, until more uniform success results from inoculation experiments similar to those which have followed the inoculation of *bacillus malariæ*, the existence of a specific bacillus cannot be admitted. In the above, however, we present our readers with what may be considered the present state of the question.

CHILDREN'S FOOD.

WE remember once going to see a respectable mechanic's child who had just recovered from an attack of cholera morbus. We found the boy of three years sitting at the tea table wrestling, and successfully, too, with a dozen fried oysters, a good-sized bowl of pretty strong tea, and a mug of beer. Thanks to our subsequent, but, we also regret to add, our unrequited, skill, he escaped the dangers

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of a relapse, to fall a victim a year later to similar parental indulgence. Such an incident, together with many another drawn from late Christmas experience, may well point a moral as to the food of children.

Up to two years of age, little besides milk should be given. Before this age the stomach cannot bear stronger food. Even after it, and up to adolescence, great care is required in the choice of the diet. It should be simple in *quality*. Milk, oysters, eggs, plain farinaceous foods, easily digested and simply cooked meats, these should constitute the staple. Even if the children eat at the family table—an American habit we most heartily commend, because of its happy influences on both parents and children—they should be restricted to the simpler foods. Indeed, it is to be hoped that the very difficulty of enforcing such restrictions may lead to the abandonment of the richer dishes rather than to the exclusion of the children.

But it is especially the villanous but delightful concoctions at dessert that we must condemn. Pies and doughnuts are bad enough, but the wonderful combinations in various "sweets," to tempt an already satisfied appetite, are well-nigh a dietetic Pandora's box to all—except the doctor. Like St. John's little book, they are sweet in the mouth, but bitter in the belly. Children should never touch them any more than the rich ragouts or the highly spiced dishes of the rest of the meal. Fruit, ripe and wholesome fruit, varied so happily in this country from month to month, should be the usual dessert, with occasionally simple puddings and the plainer cakes. The hot biscuits and various forms of breakfast cakes we would not austerely exclude the whole year round from the older children, but let them be enjoyed as rarities.

The *quantity* of food eaten is not nearly so important as its quality. Children in good health will not often overeat if the food be simple. It is the enticing superfluities that do the mischief. Fear not only "gift-bearing Greeks," but gift-bearing cooks as well. If the appetite flag, and too little food be eaten, a little beef tea, tid-bits, and varieties may be used, which need not be unwholesome because uncommon; for a time a little stimulant may do good.

Many children, like many horses, thrive well on but little food. Personal idiosyncrasies must be taken into account. The scales are the best test. So long as a child gains in weight, even only slightly, parents need not, as a rule, have any anxiety.

The *regularity* of children's diet is also of prime importance. The stomach needs its periods of rest as much as the brain or the muscles. Feeding between meals, even if the food be wholesome, is noxious; not but that occasionally some good bread and butter, or a little fruit may be proper for a growing, romping child, but the rule should be the other way. To give candy, doughnuts, cakes, pie, etc., between meals, is unintentional cruelty. It not only cheats the stomach of its needed period of rest, but destroys the appetite for the succeeding meal. Candy in moderation, and as a dessert, may be allowed as a venial sin—certainly a winsome one. But it should be well chosen, and bought only of reliable dealers. Not a little arsenic or other poison sometimes lurks there.

When we say "between meals" we do not mean that the meals shall only be three in the day. Growing children need at least one lunch, especially if the interval between breakfast and dinner be a long one. Very often children in private schools do not get dinner until two or three o'clock. Six or seven hours between meals is too long an interval without food, and every child so situated should be supplied with a hearty lunch at recess.

The general tenor of the above remarks applies equally to children's *drinks*. Milk or water may always be given. In winter, when something hot at breakfast is desirable, chocolate and its allies may be used with advantage. Tea and coffee should never be given to young children, and only in moderation, if at all, before twenty years of age, except occasionally in cases of sickness. Among the poor especially, as our opening story shows, the vicious habit of giving tea in large quantities to young children is common, and it cannot be too strongly condemned. Beer, wine, and all the stronger forms of stimulants are, *ipso facto*, the more to be condemned. Apart from the moral dangers they are harmful physically. The parent who gives them commits well-nigh a crime.

EXPERT UNEXPERTNESS.

IN a recent issue of one of the journals devoted to specialties in medicine, we find a case recorded under the title of "post-scarlatinal insanity," in which the author expresses himself as having experienced serious doubts whether the case should be regarded as post-epileptic or post-scarlatinal insanity. Our readers who are not neurological experts, but who do know something of general medicine, would not be surprised to encounter a case of convulsions in a girl of nine years, during the desquamative period of scarlatina, or that a joint affection had supervened in the same case. But by an expert these ordinary complications are narrated with an impressive gravity befitting an account of unprecedented phenomena. The forms assumed by the delirium are described with a pompous formality of sounding epithets. Thus, the girl of nine "manifested rudimentary delusions of

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grandeur strongly tinged with imbecility." In another place, "there is evident amnesic aphasia with word deafness," because, forsooth, "in answer to questions she invariably responds 'flees.'"

We learn further that "to anticipate several questions which are sometimes asked, I will say that no sphygmographic, electrical, or craniometrical examinations were made." Our readers will surely regard our statement as incredible when we say that the account contains not one word of the state of the urine. Notwithstanding the fanfaronade of technical phrases, there is not a word in respect to the condition of uræmia, which was, doubtless, the true explanation of the convulsions and of the delirium. Surely it does not require an extraordinary expertness to diagnosticate the uræmic complications of scarlatina, but it would appear that the psychiatric expert can find no organ diseased except the one with which he is concerned, and that all others are of little importance in causing any form of symptomatic disturbance.

A GRIEVANCE OF PASSED ASSISTANT SURGEONS IN THE NAVY.

MANY passed assistant surgeons now in the navy have been recently deprived of their seniority, fairly assigned them after competitive examination in accordance with a custom prevalent since 1824, which is recognized in legislative Acts of 1828 and 1835, through a literal construction by the Attorney-General, on February 25, 1881, of a law of March 3, 1871, as epitomized and presented in the Revised Statutes of the United States in 1877.

In order that they may have restored to them the seniority in their class of which they have been thus unjustly, though legally, deprived, they have petitioned Congress to enact, "That Passed Assistant Surgeons in the Navy shall be arranged upon the Navy Register according to merit, as determined by the system of competitive examination which has heretofore prevailed; and that this Act shall apply to the Passed Assistant Surgeons now borne upon the Navy Register, and all future assignments to positions on said Register shall be made pursuant to such competitive examination."

The appointment and promotion of assistant surgeons in the navy in accordance with the results of competitive examinations have had, it is universally admitted, the effect of procuring for the naval service better qualified practitioners than it could have obtained otherwise. This competitive examination presents the strong motive of personal interest to induce the competitors to strive zealously to obtain seniority by increasing their professional acquirements, because the higher the seniority the earlier is the promotion to the grade of surgeon. The measure asked for is surely proper, and it is therefore hoped that it will be speedily granted.

THE GARFIELD BOARD OF AUDIT.

THE award of $20,500 to the four surgeons summoned to attend President Garfield has been received by them. In response to the question of a newspaper interviewer, Dr. Hamilton is reported to have said that he accepted his cheque in much the same spirit as he would a dividend from a bankrupt corporation.

We are informed that the report of the Board of Audit has been called for in the House. This will again bring up the whole subject, and, in reaching a conclusion, Congress will have the aid of the light thrown upon the value of professional services as shown by the sums recently paid, without demur, by the Government to the lawyers in the Guiteau and Star Route trials. Congress will then also have it in its power to do tardy justice to the surgeons who are compelled to accept whatever may be awarded them, since, generously confiding in the justice of the Nation, they, by request, signed away all claim upon the estate of President Garfield, as a prerequisite to the case being brought before Congress for settlement.

Members of Congress, who are for the most part lawyers, have shown, perhaps not unnaturally, a willingness to make liberal compensation for legal services rendered to the Government, and we hope that they will now embrace this last opportunity to make, at least, a just remuneration to the eminent surgeons whose professional services were unsparingly given to our late President, under particularly trying circumstances.

THE new contribution to cardiac therapeutics, *Convallaria maialis*, has been carefully studied by Dr. Desplats, and his results are given in a special memoir. He concludes that convallaria is practically useless in ascites due to cirrhosis, and is of doubtful utility in albuminuria, and in cardiac icterus (nutmeg liver).

In cases of obstruction or regurgitation at the mitral orifice, with visceral congestions, dropsy, etc., convallaria lessens the number and improves the strength of the cardiac contractions, increases the urinary discharge, and thus removes the congestions and dropsy. It is, therefore, distinctly useful in this group of diseases. In his treatise on the diagnosis and treatment of heart diseases, Prof. G. Sée reaffirms his original opinion in regard to the utility of convallaria, which was strongly expressed in favor of its use in the group of cases for which it is advised by Dr. Desplats. Sée regards it as superior to digitalis in cardiac dyspnœa, in which he combines it with the iodides.

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SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, December 26, 1882.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

EXCISION OF THE ARTICULAR EXTREMITIES OF THE PHALANGES.

DR. POST presented a patient upon whom he had operated for the relief of an angular deformity, of about fifty degrees, of the index finger of the left hand. It was one of a class of cases in which he had operated a considerable number of times within the past few years, by excising the end of the phalanx. About fourteen years ago this patient had his finger dislocated while playing base-ball. The dislocation was not reduced, and the terminal phalanx remained flexed at about the angle mentioned. For some time before he came under Dr. Post's observation there had been suppurative disease, and on examination there were found two sinuses leading down to rough bone. The operation, therefore, was performed not merely for the correction of the deformity, but for the removal of the carious portion of bone, and in this instance instead of excising the distal end of the proximal bone, he excised the diseased portion of the ungual phalanx. The operation had been performed a little more than three weeks, during which time the finger had been supported by a splint. Three days ago the splint was removed, and the parts were supported by adhesive plaster. The wound healed readily, and the deformity had been corrected. Dr. Post said that the operation in his experience had not been attended by so much irritation as had amputation of the phalanx. He had applied the same operation to the phalanges of the toes. He had not met with a case in which there had been any considerable amount of irritation following the operation. He believed that the wounds healed quite as readily as after amputation. He had not succeeded, of course, in securing a perfect joint, although there had been in nearly all the cases some motion. The after-treatment consisted in keeping the parts supported until they became sufficiently firm to sustain themselves.

The PRESIDENT then read a paper on

TRIPIER'S MEDIO-TARSAL AMPUTATION.

During my residence at the New York Hospital, in the years 1839, '40, '41, one of our best surgical nurses, a man named George Compton, had lost both of his feet by amputation through the tarsus by Chopart's method. He wore on each foot a shoe, not very ingeniously contrived, nor very neatly constructed, but one which, nevertheless, by much forbearance and not a little suffering, he was able to wear occasionally, and to stump about his ward with considerable agility, which certainly was the reverse of graceful. I remember that he used to pad his shoes very carefully with layers of old blankets, cut to fit the stump, and then lace them very tightly around the ankle and part way up the leg. Thus provided, he was able to get about with some comfort for a certain time, but soon the pressure upon the cicatrices gave rise to pain and soreness, frequently terminating in most intractable ulceration, and it must be acknowledged that, brave as he appeared in his shoe toggery on Sunday mornings, as he walked down the front avenue leading to Broadway, he would commonly come back in the evening wearied and limping, and glad enough to get rid of his uncomfortable shoes, and only too happy to be allowed to stump about on his knees. Of course, he was not at all times equally disabled. Several of the surgeons of the hospital tried to improve his stumps by various operations and modes of treatment, but without any permanent benefit, and to the last his active and useful life was rendered miserable by the constant irritation of ulcerated and tender stumps, and his intelligence and courage and endurance only showed what a prize he might have won in life's race if he had not been so heavily handicapped. I did not then study the position and relation of the bones, as I should be only too happy to do now; but this I remember, that his chief trouble arose from the frequent and intractable ulcerations of the face of the stump, showing that the cicatrix bore the chief weight of the body when he walked, and was, therefore, constantly suffering from the effect of pressure directed immediately upon it.

This unfavorable behavior of the stump left by Chopart's amputation has been noticed by all the surgeons who have had much to do with this operation, and much thought and ingenuity have been expended in endeavoring to explain and to obviate it. In regard to the cause, all seem to be agreed that it depends upon a change in the position of the stump whereby the heel being forcibly drawn up, the front part, or the cicatricial face, is thrown downwards, so that, instead of resting on the natural plantar cushion of the inferior surface of the stump, this anterior face receives the whole weight of the body. It is somewhat remarkable that so wide a diversity of opinion should exist among really good observers as to the reason of this change. It would seem to be a simple and adequate explanation of the deformity to say that it is due to the unopposed contraction of the gastrocnemial muscles, but I find that, at a recent meeting of the Société de Chirurgie in Paris, a M. Larger read a paper on the causes of the tilting of the heel after partial amputations of the foot, and arrives at the conclusion that it is due solely to the atrophy of the anterior muscles of the leg, and not at all to the action of the calf muscles, which, he asserts, take no active part in the change of the position of the heel. Acting upon this theory, he applies electricity to the weakened muscles, and insists that any other treatment is entirely unphilosophical, and therefore useless. The report of the committee to whom this paper of M. Larger was referred, did not accept the exclusive views of the writer, and while they acknowledged the possible occurrence of the atrophy in question, they felt that they could not ignore the powerful influence of the muscles of the calf. In the course of the discussion which followed, M. Verneuil contended that both the anterior and the posterior muscles of the leg undergo atrophy after these amputations, and that therefore neither of them have anything to do with the displacements in question.

By all the older, and by far the larger number of the best modern authorities, the calf muscles are fully recognized as the active agents in producing, or at least in perpetuating, the deformity. The main practical question, it seems to me, is what other vital or mechanical conditions favor, though they may not originate, the undesirable position which the fact is so apt to assume. That there are other causes which at least contribute to this undesirable result would seem to be proved by the fact that division of the tendon has been recommended by many of the best operators, and yet it is universally acknowledged that this procedure does not by any means always prevent the deformity, and still less cure it when it has occurred. Let us look now at one of these accessory causes, to my mind a very important one, and see what practical relations it may have to the main cause, and to the prevention of the trouble.

While the patient is in a standing posture, the tendency of strong contraction of the gastrocnemial muscles

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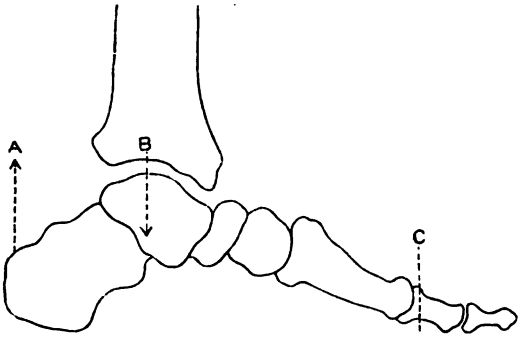
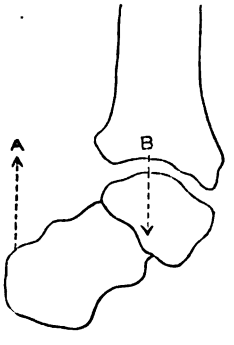
is to draw up the heel, and thereby extend the foot upon the leg. This movement is resisted by the long lever of the foot pressing upon the ground, and thereby preventing the extension from taking place. The only effect then of moderate action of the sural muscles is to keep the foot firmly planted on the ground, and at the same time to prevent the body from falling forwards. If now the action of the calf muscles be much increased, the ball of the foot remaining in contact with the ground, the effect will be to raise the posterior part of the foot, and with it the whole body, which rises as the act of extension of the foot on the leg is accomplished. The action results from the power A acting on the short arm of the lever moving the resistance B on the fulcrum C, which is at the end of the long arm of the lever (Fig. 1).

FIG. 1.



Now let us suppose, as happens in Chopart's amputation, that the long arm of the lever is removed by section between the scaphoid and astragalus; and then we should have the power A unopposed by the fulcrum C, and therefore unable to counteract the resistance B, which would force the astragalus downward until it came in contact with the ground. This becomes plain by glancing at Fig. 2.

FIG. 2.



If now the unopposed power A continues to act, its only further effect, after the astragalus has reached the ground, must be to raise higher the heel and thereby roll the astragalus in its mortise between the malleoli, so that its anterior face looks more and more downward, until finally it comes to press directly on the ground. It must not be forgotten, however, in thus estimating the action of the sural muscles, that if their influence should be entirely eliminated (as by tenotomy, for example) there would still remain in the obliquity of the under surface of the bones remaining after a Chopart's amputation a mechanical reason why the heel should rise and the astragalus descend as soon as the weight of the body is brought to bear, as in the act of standing. These two causes, then, it seems to me, conspire to produce the result we are considering, viz., 1st, the unopposed contraction of the gastrocnemial muscles; and, 2d, the oblique surface, in reference to the level of the ground, presented by the inferior surface of the bones which constitute the stump. When now we add to these statements the fact that the ligamentous tissues around the ankle-joint soon become so contracted and so rigid in their changed position that, even when the tendons are cut, they will obstinately maintain the displacement, we have related the chief, if not the only, causes which produce or perpetuate the deformity now under consideration. A review of these different causes shows also why it is that the deformity is not in every case relievable by section of the tendo Achillis; and particularly why that operation, performed after the lark heel has become established, does in many cases so little to improve the usefulness of the medio-tarsal stump.

The study of the causes of the deformity of the Chopart stump has led surgeons to seek some plan by which it might be avoided, and various suggestions have been offered in that direction. The one to which I wish to call the attention of the Society is one which was first brought forward by M. Tripier, of Lyons, and which has since gone by his name. It may be considered as a modification of Chopart's amputation in so far that the astragalus and calcaneum are left; but it differs from it in this, that a segment is sawed off from the lower part of the os calcis in such a way as to leave the lower or plantar surface of the bone showing a line parallel with the surface of the ground on which it bears in standing or walking. This section is made at the level of the sustentaculum tali in such a direction as to bring the line of the saw-cut at right angles to that of the tibia, leaving therefore a bone surface which, when the weight of the body is brought to bear on the stump, will have no tendency to change its relation parallel to the ground on which it rests. This is the principle of the operation, and its originator claims for it a great success. The cases in which the operation has been tested, thus far, are very few in number, and time enough has not yet elapsed to enable us to reach a final verdict as to its merits. In the *British Medical Journal*, of February 26, 1881, Dr. P. J. Hayes, of Kingston, Surgeon of the Mater Misericordiæ Hospital, reports a case in which he operated by this method, the man making a good recovery, and walking without a crutch in a month. He has since repeated the operation with a like satisfactory result. Mr. Wagstaffe, in the *London Medical Record*, discusses the merits of this operation and approves of it as likely to prevent the tilting heel. He contrasts the operation with the sub-astragalar, and gives preference to the method of Tripier. He does not say that he has ever done the operation.

Tripier's amputation is performed by an incision which commences on the outer border of the tendo Achillis, on a level with the outer malleolus, passes downward and forward, skirting the malleolus about one inch below it, passes then along the outer border of the foot, rather more toward the dorsal than the plantar surface, till it reaches the base of the metatarsal bone of the little toe. The line of incision here turns upward and inward, passing across the dorsum of the foot till it reaches the base of the metatarsal bone of the great toe, and then turning downward and forward into the sole is continued across the sole, making a convex flap at least an inch longer than the dorsal. When it reaches the outer border of the sole, it turns backward and upward, and joins the original incision at an oblique angle on the outer side of the foot. The flaps thus marked out are raised so far as may be necessary to disarticulate between the astraga-

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lus and the scaphoid and between the os calcis and the cuboid, leaving behind the astragalus and os calcis, as in Chopart's amputation. Then the plantar flap is carefully dissected from the lateral and lower surface of the os calcis, so that it can be exposed as high as the sustentaculum tali, this part of the operation resembling the dissection round the heel in Syme's amputation at the ankle-joint. When the lower part of the calcaneum is thus fully exposed, it is to be sawn through just below the level of the sustentaculum, so as to make the line of saw-cut as near as may be at right angles to the line of the tibia when the patient is standing, and therefore parallel to the line of the ground on which it is to be placed. The section of the bone is recommended to be made from within outwards, thereby more surely avoiding any injury to the posterior tibial artery, which, from its important bearing on the life of the plantar flap, is to be most carefully guarded. Having made sure that the section of the bone has been made in the desired line, the sharp edges and corners of the bone are to be removed with cutting forceps, and the flaps brought into place and united by many sutures. Proper drainage-tubes being placed, and a supporting dressing applied, which shall hold the lower flap well in its place, the operation is completed.

I performed the operation in the following case: John Ohmer, a German, æt. 33, a waiter by occupation, was admitted to the New York Hospital April 18, 1882. His health had been good until about four months previous, when, without any known cause, his left ankle became swelled and painful. The trouble rather slowly increased, he continuing to walk about for nearly a month, when his ankle became so distressing to him that he took to his room and finally to his bed. The further course of the disease was one of steady increase, with increasing and finally severe and constant pain. On admission the tarsal region was recognized as the seat of the disease, the swelling, however, extending up to the ankle-joint. The swollen parts were very hard and tender to the touch, and the whole region was hot and painful, but without much redness of surface. After a time obscure, deep fluctuation could be discovered, and some crepitation could occasionally be elicited by moving the metatarsal bones on the tarsus. Deep incisions were made, letting out a great deal of pus. The part was poulticed, and everything was done that we could think of to improve his general nutritive condition, but without result. The abscesses did not heal; fistulæ remained; pain was not mitigated; in short, the carious disease was making constant progress.

On the 20th of May the actual cautery was applied at several points on the dorsum of the foot, but, beyond relieved pain, no benefit could be traced. The question of amputation soon decided itself, and inasmuch as we felt confident that disease was confined to the anterior row of the tarsal bones, it was regarded as a suitable case in which to make a trial of Tripier's method. The amputation was done on the 7th of June, precisely in accordance with the description given above. Particular care was taken to make the plantar flap as liberal as possible. All the fistulæ leading down to carious bone were included in the part removed, except one which remained on the inner side of the stump. When the disarticulation was accomplished the remaining bones were carefully examined, and were considered to be free from disease, and the section of the os calcis revealed bone tissue softened, indeed, from the atrophy of disuse, but as far as we could judge, free from present disease. The flap fitted exceedingly well, and covered the bone without the slightest tension. Everything proceeded to our entire satisfaction during the first few days after the amputation. The wound healed almost entirely by the first intention, and he improved very greatly in his general condition as soon as he was released from the irritation caused by the carious bones. The local conditions, however, did not long continue favorable. Part of the wound broke open and gave issue to pus, which, it was soon evident, came from a deeper source than the surface granulations. The stump became swollen and painful and it became clear that carious disease had attacked the astragalus, and probably the os calcis. His general condition began now pretty rapidly to depreciate, and though the operation wound was for the most part soundly healed, we were convinced that there was hopeless local disorganization of the bones, and that reamputation was the only thing that could save his life. The limb was accordingly amputated through the lower part of the leg on the 8th of August, just two months after the previous operation had been performed. He made a rather slow, but ultimately a perfect, recovery.

As far as the cure of the disease was concerned, Tripier's amputation, in this case, was not a success; the mischief spreading to the bones left in the stump, and requiring another operation for its eradication. This feature has, however, no particular bearing on the operation itself, which is the subject we are now considering, and it may be said generally that in all these partial operations on the foot and also on the hand, some uncertainty must exist—first, as to whether any disease of the bones has been left behind; or, secondly, whether the bones, now healthy, may not take on diseased action in the future. As a rule, I think this point ought, with care, to be determined with substantial accuracy, and, in point of fact, recurrence of disease has been found to be rare. I am aware that Mr. Syme says, "In this operation the astragalus and os calcis are left, and though they appear sound at the time of operation, yet the disease frequently recurs, as you may learn from the fact that I once performed three secondary operations within the period of twelve months upon stumps in which Chopart's operation had been practised." On the other hand, Mr. Hancock replies: "This objection, thus forcibly urged by Mr. Syme, is, I am aware, maintained by other surgeons, but it is not supported by the statistics of the operation; since, of 104 cases, exclusive of those mentioned by Mr. Syme, I find only two followed by secondary amputation, and this for retraction and painful cicatrix, and not for recurring disease."

The new operation seems to me to offer a satisfactory substitute for a very unsatisfactory one, such as in many cases Chopart's amputation is conceded to be. It is an operation not yet proved, scarcely fairly tried, and it would therefore be unwise to pronounce too positively on its merits. That it is feasible, that it makes a good stump, is settled by the few cases in which it has been done. That it certainly and perfectly obviates all the disadvantages of the amputation which it is proposed to displace, we cannot be sure. I can only say that, as far as theoretical considerations go, and as far as a very few cases can be trusted, it seems to promise well, and I challenge for it the careful consideration of those who may have occasion to perform a medio-tarsal amputation.

DR. POST referred to another operation which furnished better results, so far as usefulness of the limb was concerned, than did Chopart's—namely, that performed by Dr. Quimby, also claimed by Dr. Turnipseed, of South Carolina. It consisted in a modification of Pirogoff's operation, but differed from it in the fact that the lower extremities of the tibia and fibula were left entire, the cut surface of the os calcis being brought in contact with the cartilage covering the lower extremity

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of the tibia. Dr. Quimby had performed the operation three times and Dr. Post had performed it twice, and in all the cases there had been a good stump and no inconvenience had resulted from want of homogeneity of the parts brought together. The wounds had healed kindly, the stumps had been firm, and the operation had been attended by only a moderate amount of shortening.

DR. L. A. STIMSON said the idea of the operation referred to by Dr. Post was not novel. It had been considered by Pirogoff himself, and, he believed, also by the English surgeon Ure, who devised the operation at about the same time as Pirogoff. The suggestion has been frequently referred to and generally condemned. The lower end of the bone is sawn off in Pirogoff's amputation, not because surgeons do not know that bone and cartilage can unite, but mainly because of the difficulty of otherwise keeping the end of the calcaneum from being drawn up by the tense tendo Achillis, the same reason that has led to its modifications in the direction of the line of section of the calcaneum or of both bones. Dr. Stimson asked if it had been found difficult to perform Tripier's operation.

The PRESIDENT remarked that there was no greater difficulty in the performance of the operation than obtained in Syme's or Chopart's, except with reference to following the line of the incision.

DR. MCBURNEY had performed Chopart's operation in one case, in which there was ankylosis of the ankle-joint, not produced by disease, but by long confinement in one position. The patient made an excellent recovery and had a useful stump. That fact suggested to him the question as to whether sufficiently strict attention had been paid to retaining the stump in proper position for a sufficient length of time after Chopart's operation had been performed. The idea was to retain it in position for a sufficient length of time to allow a certain loss of muscular power to take place, so that there would not be a marked antagonism between the anterior and posterior groups. He could easily imagine that the stump after Chopart's operation might bend downward within two weeks if allowed to follow its own course. He asked Dr. Markoe if he was able to give any information upon that point.

The PRESIDENT replied that, so far as he recollected, none of the authorities had directed attention to the question raised by Dr. McBurney. It seemed to him, however, to be a reasonable suggestion, and it also seemed to him that the mechanical factor, even with atrophy of both sets of muscles, the os calcis touching the ground first, was the great factor of the operation. Contraction of the muscles was probably another important factor.

DR. SANDS believed that the neglect to prevent this extreme extension of the foot after Chopart's operation had been recognized by European continental surgeons as perhaps the main cause of the subsequent difficulty in locomotion. He believed it had been claimed that, if extension of the foot was duly prevented during the course of the treatment immediately following the amputation, it would not subsequently take place to such a degree as to bring the cicatrix in contact with the ground, provided the former was not placed too near the plantar surface. He believed that the verdict given by American surgeons against Chopart's amputation had not been sustained by statistics. The statistics given by Max Schede proved that the limb, after Chopart's operation, was no more frequently useless than after other partial amputations of the foot; there were only ten per cent. of useless limbs after Chopart's operation. He thought that Chopart's operation was entirely legitimate, provided the astragalus and os calcis were both sound. There was an objection to both of these operations, Chopart's and Tripier's, namely, that when carious disease invaded the tarsal bones, it was apt to implicate, sooner or later, all of them, and thus there might occur, as in the case related, extension of the disease after performance of the operation, so as to render necessary amputation at a higher point. Some years ago, Mr. Hancock proposed, in cases of partial amputation, to regard the foot as a whole, and to operate without reference to the articulations, forming the flaps and sawing the bones as might be expedient. Dr. Sands thought that the suggestion made many years ago was particularly useful in these days of antiseptic surgery, when operation wounds, whether of bones or joints, were so likely to pursue a favorable course.

DR. WEIR supplemented Dr. Sands' remarks by the statement that Hancock also suggested the removal of a small section of bone, so as to counteract the contraction of the posterior group of muscles.

DR. BRIDDON said that within the last two weeks a patient came under his observation who had had Chopart's operation performed two years ago. Since that time he had been incapacitated in going about on account of painful ulceration in the line of the cicatrix; the whole of the anterior surface of the stump was covered with cicatricial tissue, and a spot about the size of a quarter of a dollar was in a state of ulceration. He thought the ulcerated condition was not attributable entirely to the operation, inasmuch as the operation had probably been performed in apparently healthy tissues. The original injury, however, was a railroad accident, and he, therefore, presumed that, as was commonly the case in railroad accidents, the vitality of the tissues was, to a greater or less extent, destroyed to a point higher than that at which the amputation was made, as some sloughing of the flaps took place, making them scanty and tense, and ulceration occurred after repeated cicatrization. As a further operation, he had recommended Syme's amputation.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, January 3, 1883.

THE PRESIDENT, W. S. W. RUSCHENBERGER, M.D., IN THE CHAIR.

DR. JAMES C. WILSON made some

OBSERVATIONS ON THE MANAGEMENT OF ENTERIC FEVER ACCORDING TO A PLAN BASED UPON THE SO-CALLED SPECIFIC TREATMENT,

which he has employed during the past year, and which, tested by such uncertain but not necessarily fallacious means as are available for a limited series of cases, has yielded satisfactory results.

The Plan of Treatment.—The management by medicinal means, super-added to the so-called rational and expectant method in general use in this community, differs from the common practice, and constitutes the plan in question. So soon as the patient's symptoms warrant a reasonable suspicion that he is about to develop enteric fever, he is put to bed, ordered a diet consisting of milk, animal broths, jelly and simple custards, in small amounts and at intervals of two or three hours. At night he is given a dose of calomel. This dose varies in amount from 7½ to 10 grains, and is repeated every second evening until three or rarely four doses have been administered in the course of the first six or eight days. It is given alone or in connection with sodium bicarbonate. There is commonly a slight increase of diarrhœa, if it be present, without aggravation of the other symptoms, and in some instances the tendency of the temperature at this time to steadily rise appears to be controlled. If, as is frequently the case, spontaneous diarrhœa has not re-

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curred in the first week, the calomel usually brings about two or three large evacuations on the day following its administration, not more. In either case, the tendency to frequent passages in the later stages of the attack is favorably influenced by the repeated administration of this drug during the first week. If the case does not come under observation until after the tenth day, one only, or at most two doses of calomel are given. No further doses of it are, however, given during the course of the attack unless constipation occur. In this event, if the evidences of extensive or deep implication of the intestinal wall, such as abdominal pain, tenderness, or marked tympany are absent, calomel in 7½-grain doses is given at intervals of three or four days. If there is reason to suspect serious intestinal lesions, the lower bowel may be more safely emptied of its contents every third or fourth day, by enemata of moderate size (8 to 10 fluidounces). It is necessary to bear in mind that the gravest lesions of the gut, leading even to hemorrhage and perforation, have occasionally been observed in cases characterized, not only by constipation, but also by an entire absence of pain or tenderness, and very moderate tympany. The danger of salivation from calomel in these doses in enteric fever appears to be slight. In only one case in sixteen were the mercurial fetor and slight swelling of the gums observed.

Excessive diarrhœa has been controlled by the use of opium, in suppositories or by the mouth, often associated with bismuth. It is an invariable rule that the patient be kept in the horizontal position and to the use of the bed-pan and urinal, from the time of the recognition of the disease until defervescence is completed. He is, however, turned upon his side from time to time, and made to maintain that position for twenty or thirty minutes, if necessary, being supported by the nurse.

From the beginning of the attack the following mixture is regularly administered in doses of one, two, or even three drops in a sherryglassful of ice-water after food, every two or three hours during the day and night.

℞.—Tinct. iodinii, ... fʒij.
Acid. carbolici liq., . . . fʒj.—M.

Unless some unusual circumstance occurs to render a change necessary, this medicine is not suspended until the attack draws to a close. It is well borne by the stomach, and in one case only has it been necessary to omit the carbolic acid on account of the disgust caused by its odor.

Partly for the sake of its favorable influence upon the skin and for the sake of cleanliness, partly because of its favorable though slight influence upon the temperature, the patient is to be sponged twice a day with equal parts of aromatic vinegar or alcohol, and cold water. If it is more grateful to him, this sponging may be done with tepid water.

When the evening axillary temperature reaches 104° F., quinine in massive doses, 24 to 30 grains, is given upon a falling temperature. I usually direct 8 to 10 grains to be given in solution at 5, at 5.30, and at 6 A.M. the following morning. Administered thus at the decline of the temperature in its diurnal revolution, these large doses of quinine depress it from 2.5° to 3.5° F. After the lapse of forty-eight to seventy-two hours, if necessary the dose may be repeated. If these doses be rejected by the stomach—an unusual circumstance—half the quantity of quinine may be administered hypodermically. For this purpose a citric acid solution is to be preferred. Since the adoption of the plan of treatment under consideration, I have not encountered cases attended with such hyperpyrexia as has rendered attempts to control it by cold baths necessary or even advisable.

The minor nervous symptoms are best held in check by skilful nursing. For the relief of the headache of the first ten days absolute quietude, a dim light, etc., are often sufficient; occasionally the bromides alone or in combination with chloral are required. Later in the course of the disease chloral is unsafe. From the end of the first week the patient cannot be left unattended even for a few minutes, without risk. Persons in whom delirium was only occasional and transient, have in many instances destroyed themselves during the momentary absence of the nurse.

Alcohol is not often indicated prior to the beginning of the third week. It is commonly administered, usually in small amounts, towards the close of sickness. Some patients do well without taking it at all. It is, of course, administered in accordance with well-understood indications upon the supervention of delirium, ataxic symptoms, and the evidences of failure of the forces of the circulation. The patients are carefully watched well into convalescence, and cautioned against too soon regarding themselves as restored to health.

The dangers of the establishment of a focus of contagion are guarded against by the systematic, thorough disinfection of the stools immediately after they are voided.

The considerations which led Dr. Wilson to adopt this plan of treatment are:

1. A feeling of dissatisfaction regarding the expectant method of treating enteric fever, based upon the high death rate.

The percentage of fatal cases rarely falls below 15 per cent., and often exceeds 25 per cent. Jaccoud, with a collection of 60,000 cases, observed a mortality of 20 per cent.; Murchison, in 27,051 cases, 17.45 per cent.; Liebermeister, in 1,718 cases at Basle, under an expectant plan, records 27.3 per cent. of deaths. But turning from broad generalizations to personal experience, who is there here that, many times elated by the happy issue of mild or average cases treated by the expectant plan, has not realized the sense of utter powerlessness attending it when he has stood face to face with cases in which *to do*, rather than *to wait*, has been necessary to save life?

2. Enteric fever is the very type of the general diseases, of affections *totius substantiæ*. The tissues are universally implicated in the morbid processes; no function of the body wholly escapes perturbation. For this reason plans of treatment suggested by the prominence of certain groups of symptoms, or by the known lesions of particular organs, even though of undoubted benefit as far as they go, are in theory unsatisfactory, because they are directed in effect against conspicuous manifestations of the cause of sickness rather than against the cause itself.

Whilst in actual practice the treatment by turpentine, by alcohol, by opium with lead, or the silver nitrate, or by agents capable of controlling the febrile movement, as quinine, digitalis, salicin, and the salicylates, even the cold-water treatment itself, although at times and in the hands of certain clinicians showing favorable results—all these have failed of general acceptance on the part of the profession.

3. The general character of the disease, the specific nature of its cause, the unsatisfactory results alike of an expectant and of a symptomatic plan of treatment, or rather of the two combined, have united to render the idea of a specific treatment, a true cure for enteric fever a most attractive one, to stimulate thoughtful observers to renew again and again the disappointing search for it. To this idea may be traced the treatment by the mineral acids, by chlorine water, by carbolic

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acid, by quinine alone, by quinine and digitalis, by iodine, by the potassium iodide, by calomel.

4. Not only is the conception of a specific treatment for specific diseases a most attractive one, and the attainment of such a treatment for enteric fever brought within the bounds of a reasonable hope by the analogy of syphilis and the malarial diseases, but the search after it with due caution and judgment has also the warrant of the very highest medical authority.

The treatment advocated consists of the use of the two remedies that are proved to exert a favorable influence upon the disease, iodine and calomel, with the addition of carbolic acid in minute amounts. The results of this treatment encourage Dr. Wilson to hope that they will lead to its trial on a more extended scale. That it amounts to a specific treatment in the narrow sense is not affirmed.

The *total number of cases treated* by Dr. Wilson by this plan is sixteen; all recovered, one being now in the second week of convalescence. Of these, eight were severe, the temperature reaching or exceeding 104° F. Of these, one was characterized by uncontrollable vomiting in the third week. The patient retained no food taken by the mouth for five consecutive days. One case was very irregular in its course, and was complicated by an obscure abdominal abscess which discharged by the bowel. The temperature in this case on two occasions attained 105° F. A third case was prolonged by a severe relapse.

Of the eight cases in which the observed temperature did not at any time attain 104° F., one was complicated by crural phlebitis, and another by the occurrence of intestinal hemorrhage.

The average duration of the eight severe cases was about thirty-one days; that of the eight mild and medium cases was about twenty-five days.

Of the whole number, ten were treated in hospital, six in private practice.

In two cases the special plan of treatment was abandoned about the beginning of the third week on account of the supervention of unusual symptoms of great gravity. These related respectively to gastric irritability and an obscure abdominal abscess.

These sixteen cases are unfortunately not a consecutive series. During the year in which Dr. Wilson has had the opportunity of observing them, two other cases of enteric fever occurred in his hospital practice in which this plan of treatment was not employed. One was previously greatly reduced, and was not regarded as a suitable subject for a special treatment, the efficacy of which was not yet established. The other, with an obscure history of a sickness of many weeks, and a very irregular temperature, developed the typhoid eruption, and within forty-eight hours had general peritonitis. These two fatal cases have, however, no bearing upon the result of the treatment.

In private practice several cases of mild continued fever of long duration were treated upon this plan. They are believed to have been anomalous cases of enteric fever, but as the rose spots of that disease were absent, and their departure from the typical disease was wide, they were not included. They all recovered.

The result of this plan of treatment has not only been satisfactory in respect of the recovery of all the cases treated, an accidental circumstance not liable to mislead persons familiar with the disease, but it has also been satisfactory in respect of the general course of the attack, and the appearance of the patient. These were in the main, despite the severe type of the disease in several of the cases and despite the occurrence of grave complications, favorable. Dr. Wilson made this statement with due regard to the personal equation, and with no willingness to permit the observed fact to differ from the actual fact, for he desires any who may make trial of this plan to be more favorably impressed with the results of it, than with his account of it.

DR. ROBERTS BARTHOLOW said that this plan of treatment is in part the so-called "specific" method. The administration of calomel in full purgative doses during the first week serves a double purpose: it has an effect on the range of temperature, and it acts on the typhoid germs present and multiplying in the intestinal canal. The use of iodine—usually Lugol's solution—throughout the disease, is also one mode of the specific treatment. By the use of this medicine, it is attempted to prevent the multiplication of germs in the intestine, to check fermentation, and to maintain an antiseptic action in the blood. Although the existence of typhoid germs has not been proved, it must be regarded as possible. Klein, a few years ago, announced the discovery of the specific organism of typhoid in the affected intestinal glands, but Creighton, of Cambridge, showed that the supposed germs were produced by the mode of preparation. This *fiasco* threw great discredit on the whole question of germs. Nevertheless, the course of treatment directed against supposed germs—the antiseptic method—has had a most favorable influence on the progress and mortality from typhoid. Whilst the specific plan has been advocated in Germany, the Montpelier school has brought forward carbolic acid as the remedy, and the success which has attended its use has been really remarkable. Quite a different complexion has been put on the statistics of mortality since they began the use of carbolic acid. It is probable that the combination of carbolic acid and iodine gives better results than the use of either singly. According to my observation, this method of treatment diminishes the diarrhœa, lowers the fever, and renders the disease much less violent, consequently lessening the mortality. Dr. Wilson has, therefore, rendered us a real service by drawing attention anew to this plan of medication, and especially by supporting his position with valuable cases and statistics. Besides this use of medicines, Dr. Wilson's treatment contains many valuable suggestions and practical methods, which, no doubt, contribute materially to his success.

DR. J. M. DA COSTA spoke of the purgative treatment in enteric fever, as that which had been tried in the French hospitals, and for a time sanctioned by Louis. As regards calomel, it was partly by its purgative action that it was supposed to be beneficial. In his hands the calomel treatment had not yielded favorable results. He had found carbolic acid useful in controlling diarrhœa and in lowering the temperature. He had also employed thymol in one-half to one-grain doses. He suggested the use of this remedy in the place of carbolic acid, as more acceptable to the stomach.

DR. WILSON called attention to the fact that carbolic acid and like drugs probably exert a favorable influence upon the course of enteric fever by their power to stay the rapid decomposition of the intestinal contents, which, for lack of the antiseptic influence of the intestinal juices, the bile, etc., all of which are changed, is a secondary cause of irritation, diarrhœa, and tympany. Calomel also, he thought, probably exerted an indirect beneficial influence in the same direction.

CORRESPONDENCE.

THE APPROPRIATION FOR THE ARMY MEDICAL MUSEUM AND LIBRARY.

WE have received from Dr. A. B. Isham, of Walnut Hills, Cincinnati, the following note addressed to him

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by the Honorable Mr. Butterworth, in relation to the note relative to the appropriation for the Army Medical Museum and Library, given in the number of this journal for December 30th, page 738.

We are very glad to learn that we have been misinformed as to the attitude of Mr. Butterworth relative to this interest. In the last number of this journal, January 13th, page 59, the full debate in the House relative to this appropriation was given, and Mr. Butterworth's remarks as there reported fully sustain the statements in his letter.

HOUSE OF REPRESENTATIVES U. S.,
WASHINGTON, D. C., January 6, 1883.

MY DEAR DOCTOR: Your letter of the 3d is received. THE MEDICAL NEWS was not possessed of accurate information. So far from reducing the appropriation, I moved its increase over what the Committee had allowed. I am aware of the great value of the Museum, and am only sorry that no suitable fireproof building has been provided for it.

I thank you for the kind expressions contained in your letter, and with best wishes, I am

Very truly yours,
BENJAMIN BUTTERWORTH.

A. B. ISHAM, M.D.,
(Walnut Hills; Cincinnati, Ohio.

MUSCLE-READING.

To the Editor of THE MEDICAL NEWS.

SIR: A recent issue of your journal contains a report of some of my more recent experiments in muscle-reading, which, together with the comments made thereon, are founded on a misunderstanding of the nature of my experiments.

I understand you to say that there is in these experiments danger of being deceived. This is precisely not the case. Muscle-reading experiments are as accurate as anything in mathematics; they are indeed a part of mathematics itself. The beauty and the power of these experiments in muscle-reading consist in their precision, in the impossibility of being deceived, in the certainty of the results, and in the firm knowledge which the experimenter has that he has not been cheated by anybody, not even by himself.

It is quite true that many of the phenomena of artificial trance or hypnotism can be simulated; but the phenomena of muscle-reading, whether done by a person in trance or out of trance, cannot be simulated, as all authors all over the world who have studied the subject agree; even a non-expert can understand this after a short process of experimentation. If those who have not an opportunity of experimenting themselves on this subject, or of witnessing the experiments of others, will read what I have published on the subject years ago in *The Popular Science Monthly* (February and July, 1867; and *Journal of Science*, July, 1881, London), and in other journals, or will read the reports of the members of the Royal Society of England (Francis Galton, Ray Lankester, M. Romanes, and Prof. Robertson), who experimented in the same direction (*Nature*, June 23 and July 14, 1881), and who obtained results precisely similar to mine so far as they went, they will find that there is nothing in science more accurate than the results obtained in these experiments. The special object of these later experiments was to determine the extreme minuteness of the localities that can be found by means of artificial appliances. The details will soon be published in a scientific journal.

I hope, however, that the readers of your journal will not content themselves with the experiments of others on this subject, but experiment for themselves independently; subjects can be obtained everywhere, and they will find results as hertofore stated. I trust also they will do what is possible to enlighten the public, as well as professional and scientific men, on this theme. The strongest friend of quackery of all kinds, and the strongest enemy of our profession, in this country especially, but more or less in all countries, is ignorance of the action of mind on body. The best single answer to the delusions that sustain quackery that I know of is found in these muscle-reading experiments; in the rapidity, the precision, the delicacy, the certainty to which they can be carried on they show more powerfully than anything else I know of in science the interdependence of body and mind, and suggest the true explanation of the success of nearly all the forms of charlatanism in all ages. Withal, these experiments, which when they were first made were an original contribution to science, have a direct and positive value for physicians who rightly understand them; the suggestions they give are of practical as well as scientific service to our profession, and especially to psychologists.

It is now eight years since I made my first experiments in this department of science. The interest in the subject has increased to such a degree that there is already quite a literature on the subject, particularly in England, and in the past year the German psychologists are beginning to look into the matter. There is no danger that physicians will study it too much; there is much danger of studying it too little, and giving too little heed to the important practical suggestions which it offers.

GEORGE M. BEARD.

NEW YORK, January 10, 1883.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

A NUMBER OF SUPPOSED CASES OF TYPHUS FEVER were discovered in a Hester Street tenement house by the Board of Health, and it was found that there had been no less than six deaths in a few weeks. The disease was typhoid, and not typhus fever. The locality is one of the worst in New York, and this outbreak should be a warning to the authorities.

A NEW SOCIETY OF MEDICAL JURISPRUDENCE has been established by the dissatisfied seceding members of the Medico-Legal Society; among them Drs. Hammond, Spitzka, Morton, and a number of Brooklyn physicians. Dr. Wight, the Professor of Surgery at the Long Island Hospital Medical College, read a paper upon "Illusions and Hallucinations as Affecting Testamentary Capacity," at the inaugural meeting.

THE NEW CODE.—There is much sharpening of knives and burnishing of armor upon the part of the delegates who are to go to the State Society. The outside County Societies are repudiating the action of their delegates who went to Albany last year. Several medical men, not entirely unknown in medical politics and post-graduate instruction, are determined to make a bitter fight for the New Code.

THE ILLNESS OF MISS LILLIAN RUSSELL, a popular comic opera singer, brought forth a column of interview in the *New York World* the other day. Miss Russell seems to have been treated in sections by a dozen or more of the regular physicians and homœopathists, all of whom pursued a different plan of treatment, and abused each other roundly. The stage manager of Miss Russell objected because one of these gentlemen gave her 120 grains of quinine *per diem*.

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THE GOVERNMENT'S MEDICAL EXPERTS IN THE GUITEAU CASE, many of whom gave a month of their time to the trial, have not been compensated yet, although over a year has elapsed. The lawyers have been paid, and it is difficult to see why an exception should have been made entirely in their favor.

POUGHKEEPSIE, N. Y.

(*From our Special Correspondent.*)

THE DUTCHESS COUNTY (N. Y.) MEDICAL SOCIETY AND THE NEW YORK CODE.—At the annual meeting of the Dutchess County Medical Society, held at Poughkeepsie on January 10th, it was

Resolved, That the Medical Society of Dutchess County instruct its delegates to vote in favor of repealing the Code passed at the last meeting of the State Society.

TROY, N. Y.

(*From our Special Correspondent.*)

RENSSELAER COUNTY (N. Y) MEDICAL SOCIETY AND THE NEW YORK CODE.—At the annual meeting of the Rensselaer County Medical Society, held January 9th, the following resolutions were adopted by the Society:

Resolved, first, That this Society affirms its loyalty to the Code of the American Medical Association.

Second, That it directs its delegates to vote for the restoration of the Code of the American Medical Association.

CHICAGO.

(*From our Special Correspondent.*)

PRELIMINARY EXAMINATIONS.—It has been known for a number of months that after the present course of lectures our State Board of Health would not recognize the diplomas of colleges which do not require an entrance examination of its students. Hereafter, graduates from colleges which do not have this requirement will be obliged to undergo a special examination before the State Board in order to be admitted to practice in Illinois. The four regular schools here require preliminary examinations.

TRAINING SCHOOL FOR NURSES.—This organization, now only about two years old, has become so much of a success at the County Hospital, that citizens have contributed funds enough to buy a lot and commence the building of a permanent Home for the school, within half a block of the college. Probably no good organization, touching in its work the practice of our profession, has ever been started among us which has worked more quietly and modestly than this, and certainly no other has, in so short a time, established itself on so firm a foundation of public confidence in its value and usefulness.

A NEW CHAIR OF LARYNGOLOGY.—Rush Medical College has just created a special chair of laryngology and elected Dr. E. Fletcher Ingals to fill it, with the title of Professor of Laryngology.

NEW ORLEANS.

(*From our Special Correspondent.*)

HEALTH OF NEW ORLEANS.—This city is not as healthy as it usually is at this time of the year. One hundred and sixty-three deaths occurred last week.

The most serious diseases prevailing are pneumonia, some of the eruptive fevers, and cerebro-spinal meningitis. It is reasonable to suppose that the holidays are in part chargeable with this increase of mortality. The festivities of Christmas and New Years bring such fruits as pneumonia and cerebro-spinal meningitis from exposure to cold; and the eruptive fevers by disseminating their special poisons throughout those assemblages which hilarious occasions bring together.

The deaths from smallpox average about ten a week; scarlatina is much less prevalent. Four cases of cerebro-spinal meningitis have been admitted to the hospital within the past ten days. One of these, which was apparently the most furious at date of admission, suddenly abated, and the patient has been discharged, well. It is a well-known fact that in some autopsies of patients who die from cerebro-spinal meningitis, no lesions are found to indicate that the inflammatory process had gone beyond the stage of engorgement. We may from this understand how it is that well-marked and threatening symptoms may sometimes stop short of death, or of such an amount of effusion as to make recovery slow. Two of these cases were under your correspondent's charge. They were treated by bromide, potash, and ergot in the first stage: by iodide-potash in stage of effusion.

Pneumonia is a fatal disease in all large hospitals. It becomes still more so if the hospital be located in a place where malaria is so rife that every case treated is complicated by its presence or influence. But in spite of these difficulties which we have to meet, the mortuary reports of the hospital show very favorably when compared with the death-rate of the city.

DEATH OF DR. WARREN STONE.—The early days of the present year instanced the death of Dr. Warren Stone, the son of the late Prof. Warren Stone. He was very largely endowed with the talents and noble traits of character which distinguished his father. The medical profession of New Orleans and a large circle of non-professional friends deplore his loss.

TORONTO.

(*From our Special Correspondent.*)

MORAL INSANITY.—At the December meeting of the Toronto Medical Society, the veteran Dr. Workman, late Superintendent of the Toronto Asylum for the Insane, read a long and very interesting paper on moral insanity, in which he said: "The term *moral insanity* was introduced into alienistic literature by Dr. Pritchard, an English writer, in 1835. Previously, Pinel, of Paris, to designate cases apparently identical, had styled them '*manie sans delire*.' His pupil, Esquirol, preferred the term '*manie raisonnante*.' This, to the vast majority of lay readers, must have appeared a very absurd designation, for the vulgar conception of insanity is that its subjects are incapable of reasoning, a belief which has been found very erroneous by many visitors of asylums who have ventured to address the inmates as if regarding them all as utterly mindless beings. Pinel's *manie sans delire* was a term quite applicable to a large proportion of all the insane, that is, in certain phases or intervals of the malady, but it would certainly be found to fail to cover the whole history of his cases. Insanity almost invariably has its inception in a change of the feelings or moral sentiments of its destined victims. This is its usual prodrome; but it is only when abnormality of the intellect has become manifest that the real disease is recognized by the friends of the patient, and too often, even then, it is not admitted by the neighbors, or the community, for outside of his own domestic circle the patient's language or actions may appear quite rational. When the insane commit crime, in almost all instances, the quality of the offence is judged of, not according to their actual mental state, but according to its nature or enormity; and it is very well known that the crimes of the insane are sometimes shockingly enormous. Why should they not be so?

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"Pritchard's *moral insanity* might, with more propriety, have been called *insane morality*. Of the seventeen cases adduced by him, hardly one will bear the test of strict analysis. Some degree of intellectual debility or impairment may be detected, by an experienced reader, in every one of them, and several exhibited very palpable defects; one, indeed, perhaps his most accentuated, terminated in general paralysis, an invariably fatal form of insanity and one which, in its early stage, is often characterized by gross departures from moral propriety."

Dr. Workman, in the latter part of his address, gave the history of several cases of the *so-called* moral insanity which had come under his own observation, or had been recorded by his alienistic *confrères*. The details were very instructive. He concluded by earnestly admonishing his professional brethren, when unfortunately they might have to appear in Court as expert witnesses, never to fall into the inadvertence of using the term *moral insanity*.

INTERNATIONAL MEDICAL CONGRESS, EIGHTH SESSION; COPENHAGEN, 1884.—Prof. P. L. Panum, President of the Organizing Committee of the Congress, and D. C. Lange, Secretary-General, announce that, in accordance with the desire expressed by the International Medical Congress at its seventh session in London, 1881, that the eighth session of the International Medical Congress will be held in Copenhagen during the days from the 10th to the 16th of August, 1884.

FEES OF THE GUITEAU TRIAL EXPERTS.—The Department of Justice has decided on paying the experts summoned by the Government in the Guiteau trial at the uniform rate of $25 a day, with the ordinary witness fees in addition, but no other allowance for expenses. It was felt that the Government could not undertake to distinguish between experts according to their supposed rank in the profession or their comparative eminence, but must be governed by the length of their service. The bills ranged all the way up to $100 a day. The whole amount to be paid to the experts, exclusive of the ordinary witness fees, will be between $12,000 and $13,000.

Mr. Brewster Cameron, who has the matter specially in charge, intimates that any experts who were especially connected with the preparation of the case may receive an additional allowance on that ground. There were four of these—Dr. Gray, of Utica; Drs. Macdonald and Allan McLane Hamilton, of New York, and Dr. Kempster, of Wisconsin.

A TRAINING SCHOOL FOR NURSES is to be attached to the Kings County Hospital, on the plan of the one at Bellevue.

NATIONAL ASSOCIATION FOR THE PROTECTION OF THE INSANE AND THE PREVENTION OF INSANITY.—The annual meeting of the National Association for the Protection of the Insane and the Prevention of Insanity will be held at the hall of the College of Physicians of Philadelphia, on January 25, 1883, at 3 and 8 P.M. The address of welcome will be made by Dr. S. D. Gross. Papers will be read by Drs. Traill Green, J. S. Jewell, Charles K. Mills, Milner Fothergill, and others.

THE MONTHLY BULLETIN OF THE MORTALITY AND SANITARY CONDITION OF LOWELL, MASS., differs from most of its contemporaries, which are strictly statistical, in containing short but excellent articles intended for popular education in sanitary subjects. The issue for December discusses "Preventable Disease" and "School Hygiene."

THE JOHNS HOPKINS UNIVERSITY.—PRESIDENT GILMAN has just issued his seventh annual report, covering the session of 1881–82. The University is stated to be in a flourishing condition. There has been considerable original work accomplished during the year in the different departments.

DR. REMSEN'S attention seems to have been confined principally to analyzing the drinking waters of Baltimore and Boston with a view of remedying their disagreeable taste and odor. His work has been very successful, particularly at Boston, where he showed the cause of the trouble to be a fresh water sponge, *spongilla lacustris*. In addition to the general course in biology, there is a course preliminary to the study of medicine which has been well attended. It is hoped that the time is not far distant when the medical department in connection with the Johns Hopkins Hospital will be organized. The work accomplished here in biology has been extensive. Dr. Martin, since his connection with the University, has paid special attention to researches in physiology, and has devised a new method of studying the mammalian heart. He has succeeded in keeping the heart alive for five or six hours after the death of the animal, and now any external influences upon this organ can be investigated much more satisfactorily than heretofore, when biologists had to confine their experiments to the hearts of batrachia.

The appendix to the report contains a full list of Fellows since 1876, and a complete bibliography of all articles and books published by members of the University.

When it was determined to build the two new laboratories, the board of trustees was divided on the question of location, some favoring Clifton, others the present situation in Howard Street. As they are being built in the city, it would seem that the University will be permanently located in Baltimore, and not at Clifton, as was the founder's intention.

The Johns Hopkins Hospital is about a mile directly east from the University. The towers of the administration buildings can be seen from all prominent parts of the city. The buildings most needed at present are virtually completed. Seven of the twelve wards are almost ready. Five of these are free, and can accommodate with the greatest ease 156 patients. The other two are pay-wards and furnish room for thirty-two beds. These wards are to be supplied with all the modern improvements. The construction of the elaborate system of ventilation has been directed by Dr. John S. Billings, United States Army. Fifteen buildings have up to this time been erected, the ground inclosing them being a plot of fourteen acres. In addition to the wards the administration, nurses' kitchen, autopsy and medical school buildings are completed. All are of the Queen Anne style.

WEST VIRGINIA STATE BOARD OF HEALTH.—Governor Jackson in his biennial message to the Legislature, dated January 10, 1883, refers to the Health Board of the State as follows:

"The law establishing the State Board of Health and regulating the practice of medicine and surgery, as amended and re-enacted last winter, has proved a wise act of legislation. It is admirably adapted to secure the protection of the lives, health, prosperity, and happiness of all classes of the people. It has met with the sanction of eminent sanitarians in other States, who have become acquainted with its provisions. The law is now in force in every county of the State, and we may reasonably expect that its operations will prove of much benefit. The number of registered physicians and surgeons to date of report

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is 1,041. Of these, 958 are residents of the State and the residue residents of adjoining States.

Besides the careful protection of the interests of the life and health of the inhabitants of the State, the Board is charged with the duty of investigating the causes of diseases occurring among the domestic animals. The value of this provision of the law was witnessed in Brooke County last summer, when what is known as the Southern cattle fever made its appearance in that county. The prompt action of the State and County Boards arrested the spread of the disease, and probably saved large sums of money to farmers of that locality, in the preservation of their stock from infection."

DISINFECTION BY HEAT, AND ITS PRACTICAL APPLICATION.—The superiority of heat over all fumigations and other reputed disinfectants is now generally recognized, and local sanitary authorities have already in many districts set up disinfecting ovens or chambers of one or other kind. It is, however, of the utmost practical importance that the intensity and duration of the temperature required for the destruction of bacilli and of spores should be fully appreciated and attended to, if such "disinfection" is to be really effective, and not a dangerous delusion. DRS. R. KOCH and WOLFFHUGEL, after a long course of carefully conducted experiments, find that bacteria are not killed until after an exposure of one hour and a half to a temperature of 100° C. (212° F.). Spores of fungi require a greater heat, viz., 110° to 150° C. (230° to 300° F.), for at least as long; while nothing less than a temperature of 140° C. (285° F.), continued for three hours, suffices to kill the spores of bacilli, as those of anthrax. These are the germs with which we have to deal in practical disinfection. Such a temperature will, in three hours, infallibly kill these spores, but since it takes that time to penetrate to the centre of even small bundles of clothes, or of pillows, a further exposure of like duration will be required for their complete disinfection, and few articles of clothing or bedding will bear such treatment without serious damage. It is to be regretted that Drs. Koch and Wolffhugel did not repeat their experiments with moist air, for there seems to be no reason to fear that the presence of a proportion of vapor not amounting to saturation can detract from, if indeed it do not actually enhance, the efficacy of the heat; while it is known that the most delicate fabrics, as ostrich feathers, dyed silks, etc., are uninjured by a temperature of 300° Fahr. under these conditions, and if the moist air be forced in under pressure, as in W. Lyon's apparatus, the penetration of the heat is greatly facilitated. The general conclusion to be drawn from these experiments, which are described in detail in the *Mittheilungen des k. Gesundheitsamte*, Bd. i., seems to be that nothing less than a three hours' exposure to a temperature little short of 300° Fahr., with precautions to insure the penetration of every part of the articles subjected to it, is sufficient. How this is to be attained is a question of detail, but at present it certainly appears that preference is to be given to the particular apparatus above named.—*Medical Times and Gazette*, Nov. 4, 1882.

SMALLPOX IN SOUTHERN AFRICA.—Reports recently received from Cape Town state that the epidemic with which the city and neighboring villages have been scourged during the past few months is now abating. There were admitted into the Lazaretto from the commencement of the outbreak until October 30, 1,015 patients, but these constitute only about one-eighth of the whole number who have been affected. Of the 1,015, 253 were white, and 762 colored. Of the whites, 183 had been vaccinated at some previous time, and 70 were unvaccinated. Of the colored, the corresponding numbers were 180 and 582. Among the whites 49 deaths took place, 23 of the patients in these fatal cases having been vaccinated, and 26 unvaccinated. Among the colored people 252 fatal cases occurred, 31 having undergone previous vaccination, and 221 never having been vaccinated.

	Admitted.	Died.	Percentage.
Vaccinated,	363	54	14.87
Unvaccinated,	652	247	37.88
	1,015	301	29.65

Difficulty was experienced in procuring reliable vaccine virus.

At St. Paul de Loundu the disease is progressing. During the month of October 150 cases of smallpox were registered, of which 80 proved fatal. The population is estimated at 12,000. The sanitary condition of the town is represented as of the worst possible character.

CHOLERA, PREVENTION AND CURE IN CHINA.—The United States Consul at Foochow, China, in a recent official report, gives information derived from native physicians concerning the cause and treatment of cholera. The disease is conceived to arise from unseasonable weather and a lack of harmony between the upper and nether worlds, so that men living between the two are exposed to and suffer from noxious influences; or it is caused by wraiths badly laid or of evil intent, who are boldly exorcised from houses and passages by nightly processions bearing the images of proper spirits. The villages quarantine against each other. Among the precautions to be observed in times of danger, we find that nothing must be eaten or taken into the stomach which is liable to cause diarrhœa or vomiting. Fats and oils must be avoided, and salted provisions used instead. Tea should be replaced by ginseng infusion. Exercise in the heated part of the day should be avoided. If all precautions fail, and the individual become affected, ginger, cassia, and aconite are administered, the black blood is let out from under the finger-nails by needle punctures, counter-irritation is applied to the arms by heated seeds, and finally, the umbilicus is burned to warm up the stomach and start the circulation of the blood.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending January 6, 1883, indicate that consumption, erysipelas, measles, pneumonia, and bronchitis have increased, that diphtheria and neuralgia have considerably decreased, and that intermittent fever, whooping-cough, inflammation of brain, remittent fever, and influenza have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending January 6th, and since, at 18 places, scarlet fever at 15 places, and measles at 12 places. Smallpox was reported in Richmond, Osceola County, January 2d, and in Royalton, Berrien County, January 4th.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 8 TO JANUARY 15, 1883.

MUNDAY, BENJAMIN, *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Fort Klamath, Oregon.—*Par. 3, S. O. 195, Department of the Columbia, December* 29, 1882.

SKINNER, JOHN O., *Captain and Assistant Surgeon.*—Granted leave of absence for one month.—*Par. 2, S. O. 5, A. G. O., January* 6, 1883.

JOHNSON, R. W., *First Lieutenant and Assistant Surgeon.*—Granted leave of absence for one month.—*Par. 2, S. O. 4, Department of Dakota, January* 5, 1883.

WOOD, MARSHALL W., *Captain and Assistant Surgeon.*—Granted leave of absence for one month.—*Par. 3, S. O. 4, Department of the East, January* 8, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, JANUARY 27, 1883. No. 4.

ORIGINAL LECTURES.

ESMARCH, ANTISEPSIS, AND BACILLUS.

The Annual Address, before the Philadelphia Academy of Surgery, delivered at the Hall of the College of Physicians, January 8, 1883,

BY WILLIAM HUNT, M.D.,

SENIOR SURGEON TO THE PENNSYLVANIA HOSPITAL.

GENTLEMEN: How does the statement, so often made in these times, that everything is practical and demonstrative, and that the days for didactic teaching and oratory are past, agree with the fact that there not merely lingers, but actually exists, an intense desire on the part of most people to hear something said by somebody, it too often seeming to be a matter of indifference whether what is said be good or bad, so that the desire is fulfilled? Does not the reason lie in the fact of the vast superiority of the sense of hearing, over every other sense, as a means of intellectual culture? Science demands demonstration, but demonstration requires explanation; pantomime alone will not do, otherwise the deaf and dumb should be our intellectual superiors. They are, however, shut off in a much greater degree than the blind from that capacity of association with their fellow-men which is so essential to high degrees of mental cultivation. We can demonstrate to deaf mutes, but we cannot do so to the blind. These say "*tell* us all about it;" the others, "let us *see* it." These will ponder with the subjective, and show that, hearing, they have understood, while with the others there is reason to believe the objectivity of objects remains without analysis, and for the most part seeing, they see not. The modern introduction of lip language promises a great compensation to these unfortunate ones. I can see no reason why a deaf mute with a healthy brain, one who simply cannot speak because he has never been able to hear, having learned the language of speech, instead of his own, which is essentially a foreign one of signs, should not become the peer of any of his fellow-men. It may be said that deaf mutes have all the requisites for cultivation in books, after they have learned to read. But reading of a high order, to one who only knows the language of signs, must be a labor indeed, and I should argue without having made practical inquiry that it would be very exceptional, and in most cases an impossibility.

In studying, then, the respective merits of the didactic and the demonstrative, the blind and the deaf give us the most striking contrasts. Great contrasts, also, teachers most sadly know, exist among those who pride themselves on the full possession of all of their senses. Dumb talkers and deaf hearers thrive in such numbers as to almost justify Carlyle's estimate of population being "mostly fools." It may be that a tacit acknowledgment of this by the wise ones of the world is the foundation of the immense advance of demonstrative teaching over the other and older method. The teacher seems to say, if I cannot *talk* a fact into your head, I can at least *show* it to you; and if with ears and eyes both you do not take it in, it is your fault and not mine! Who knows but what these proud demonstrators, who now so largely occupy the field of knowledge, may, when the concealing veil of truth is lifted, have to realize that they have been engaged in a fleeting *show*; while the dialectician, by contemplation led, is enabled to reveal that to which their work is as nothing and vanity.

And now I, who have always been a demonstrator, being forced for the first time, by the appointment of our unrelenting President, into a didactic position, must cast about for a theme with which to occupy the allotted time this evening.

Biography is justly the favored resort on such occasions, for what is more interesting and instructive than the following of the footprints of the great and learned ones of the past? Our two great leaders have already indulged us in this way. John Hunter and his pupils and Baron Larrey have been most vividly pictured to us. It is most tempting to follow the example, and I might take up Paré, or Cheselden, or Cooper, and discourse on the ligature, or lithotomy, or luxations, until my task was done. I might also go back, almost into the "night of time," and query as to what was then done for human ills, and show that medicine and the knife and fire were then, as they are now, at the command of those who had the skill, or the boldness, or the assumption to use them. But I shall choose none of these subjects, for my discourse will be devoted to a few of the occurrences of the past year, partly hackneyed and partly, I hope, fresh enough to interest you.

On the 2d of February, 1882, the distinguished Prof. Esmarch delivered a lecture at Kiel upon the "Treatment of the Wound of President Garfield." He was so kind as to send me a copy of this lecture. The high standing of the author and the lecture itself were looked upon as matters of such importance that, you will remember, they were made the subjects of a cable telegram to this country, and doubtless also to other places. A short statement of the opinions of Esmarch was given in the telegram. In his lecture the Professor states that he is led to select his subject from having noticed, through many English and American publications, that the widest difference of opinion exists among most distinguished American surgeons, both as to the wound and as to its treatment.

Short comments on five of the critics form the introduction to his paper. These, in the order named, are myself, from whom he opens the discourse with quite a lengthy quotation, from my letter published in THE MEDICAL NEWS, for Nov. 1881, which he characterizes as an attack upon antisepsis. Then follow the conclusions of Drs. Wm. A. Hammond, Marion Sims, John Ashhurst, Jr., and John T. Hodgen, taken from the celebrated and widely read article contributed by these four gentlemen to the *North American Review* for December, 1881.

In his concluding paragraph Dr. Hammond says, "it is denied that the wound was necessarily a mortal one," and that "the President did not have all the advantages of treatment which modern surgery is capable of affording." This much of that paragraph Prof. Esmarch quotes, and further on he says, "I must, upon the whole, adhere to the last proposition of Dr. Hammond, but, indeed, from an entirely contrary standpoint." He then takes the history of the case furnished by Dr. Bliss to the *Medical Record* of the 8th of October, 1881, and from it, and from the report of the autopsy, he seeks to establish his points.

I have never met Prof. Esmarch personally, but he must be a capital example of the effect of climate on character. His work has the snap of a Norseman in it, and is very different from the tedious disquisition

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of many German writers. He was born at Tönningen, on the North Sea, but most of his life appears to have been spent at Kiel, on the Eastern shore—"by the wild Baltic's strand." In considering his subject, he gives a synopsis of the case from the materials at hand, and with abrupt, short, and sharp, if not always decisive, running comments, in the shape of foot-notes, he makes his thrusts. The reader who is not fond of foot-notes would miss the gist of the matter if he avoided them here. It would be interesting to know how they were managed in the lecture, as this, surely, could not have been delivered as printed; for, if so, much of its spice must have been lost.

The main point of the illustrious critic is, that *true* antiseptic treatment was not practised. The whole story is so familiar to us that I shall confine myself mostly, and therefore often abruptly, to the exact places where these pithy notes occur, and also, adopting the same style, I shall take the liberty of occasionally throwing in a note of my own, designating it with an H. The order will be a translation by me, back into English, of the parts of Esmarch's synopsis of Dr. Bliss's record, which are the especial subjects of his strictures; then Esmarch's notes; then my H's. After the record has been gone through with, only E. and H. will appear.

To begin: "The first physician who saw him (Dr. Townsend) carried his finger immediately into the wound; nevertheless, without finding the ball."

Note, "It is not stated that before this he washed and disinfected his hands."

H.: Railroad stations, as a general thing, do not keep twenty to forty per cent. solutions of carbolic acid on tap.

"The patient complained of a feeling of weight and numbness, later of pins and needles, and pain in the lower extremities."

Note, "Shock of the spinal cord."

"Dr. Bliss immediately examined the wound."

Note, "Nothing is said of antiseptic precautions."

"Then he carried the little finger of his left hand into the wound."

Note, "A dangerous operation without the spray."

"Thereupon he carried in a bent silver probe."

Note, "That it was previously satisfactorily washed and disinfected, is not stated."

H.: Clean hands and clean probes are at least as common in America as in Germany or Denmark. That "something is rotten in the State of Denmark," is a matter of common information.

"As the President was very desirous of being taken to the White House, a *temporary dressing*"—

Note, "What is that?"

H.: Why that is just what it says, a temporary dressing put on to last during transportation.

"In answer to questions, the President stated that the movement of the wagon did not cause any unpleasant feelings."

Note, "From which it is to be concluded that the spinal column was not separated."

H.: His attendants surely knew that much.

"As there was suppression of urine until six o'clock in the evening."

Note, "Urethral spasm."

H.: Better, insufficient or disturbed innervation from admitted spinal shock.

"A catheter was introduced and six ounces of clear, not bloody—"

Note, "Therefore, no injury to the kidneys."

H.: A good point in diagnosis

"The carbolized-cotton dressing had become displaced and must be renewed."

Note, "An *antiseptic* dressing could not have been so easily displaced."

"During the night the outflow of dark blood continued, and made frequent renewals of the dressing necessary."

Note, "The dressing could not have been very thick."

H.: I find nothing about frequent renewals at this time in Dr. Bliss's report, but if they were made, how thick should the dressings have been? It appears to me that the abundant first and wet organic discharges would soon, in the hot weather especially, have become a true outward nest for infecting germs, instead of theoretical ones in the room.

Drs. Agnew and Hamilton arrived July 4th. "The temperature was 37.8° C., pulse 104, respiration 19."

Note, "Therefore the whole condition was very satisfactory. In spite of this a renewed examination was made with probes, flexible bougies, etc., in order to determine the course of the ball."

Note, "What for? According to his report, Dr. Hamilton disclaimed any probing. It is not stated whether the instruments were properly disinfected or whether other antiseptic precautions were observed."

H.: Here is a question of fact, and here is an extract from a letter of Dr. Agnew's, dated December 5, 1882. I wrote to Dr. Agnew on account of remembering what he told me on his return from Washington after his first visit there. He says: "You are right; no examination was made by the consulting surgeons at the time of their visit. They were informed that careful explorations had been made at the time of the shooting by Bliss and by Wales. Bliss admits that he committed an error on this point, writing as he did in New York and without any notes to refer to." Of course, Prof. Esmarch is excusable, as Dr. Bliss's report was his source of information. But one of his severest strictures is thus swept away, and the expectant treatment, as we will find further on, which he so ardently advocates in such cases, and with which I am in full accord, was carried out to the letter.

To proceed: "They were convinced that neither the liver, nor the kidneys, nor the intestine, nor the peritoneal sac were injured, and refrained from any operative interference."

Note, "They might have known this without this examination."

H.: As the examination was not made, they appear to have been a fairly bright set of men, with average reasoning faculties.

"On the 21st of July a pus collection was discovered in the general integument which passed below the twelfth rib, towards the erector spinæ muscle, and underneath the latissimus dorsi; and the pus, with every change of the dressings, was carefully (Dr. Bliss says gently) pressed out towards the wound of entrance (Schussöffnung)."

Note, "Stromeyer and myself (references given) have most energetically spoken of the dangers of pressing pus out of wounds, especially, or namely, if splinters of bone are within."

H.: A very important thing to protest against, but I will again refer to this further on.

August 6: "A flexible catheter was passed downwards through the wound seven inches, towards the crest of the ilium. This was *now done twice daily* in order to rinse out the pus with an irrigator (hand fountain) filled with a solution of permanganate of potash."

Note, "In any case an obsolete and ineffective disinfection method."

H.: Whether this was done too often or not, those who were in attendance were the best judges of the requirements; also they were at perfect liberty to select their disinfecting fluid, and the permanganate of potash is a good one.

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"In conclusion, Dr. Bliss remarks that the most approved antiseptic dressings were used during the entire progress of the case."

Note, "That, certainly, does not amount to much. There is a great difference whether one treats a wound with antiseptic *dressings*, or whether he treats it according to *antiseptic principles*. Against these much that is bad has been manifestly done here."

H.: Here are questions of fact, and the record to appeal to. Each one will have to judge for himself, though I hope not so harshly as the Professor has done, as to whether principles were subordinate to technic in the case.

Here follows a synopsis of the autopsy, illustrated by the familiar drawing of the perforated vertebra and fractured ribs. How any surgeon can look at that drawing and reflect upon the surrounding structures, which, if not directly, were by contiguity involved, and then say, not that it is not *possible* for a man so wounded to recover, but that he *ought* to recover, through modern methods properly applied, it is hard to conceive.

Then follow the conclusions of the Holstein Professor, thus:

E.: "1. President Garfield did not receive an absolutely deadly wound. The liver was not injured; the peritoneal sac was not injured; there was no peritonitis; altogether there was no important organ injured, *with the exception* of the *vertebral column!* The injury of the vertebral bodies was not of itself mortal. Healing might have readily occurred if putrefactive ichor (verjauchung) had not set in. *In military surgery there are examples enough of recovery from similar injuries.*"

H.: Instead of giving any such examples, here follows a long foot-note about deer shooting, thus:

Note, "Every hunter knows that the stag mostly survives a peculiar shot, the so-called hohlschuss. This is a shot by which neither the viscera, nor the great bloodvessels, nor the spinal cord are injured. As the great vessels lie directly below the faces of the vertebral bodies, and the spinal cord directly above them, the ball, in this case, must go directly *through* a vertebral body itself. If the cord is wounded, the stag, on account of the paralysis of his hinder extremities, cannot take to his heels when the hunter comes to give him the final stab.

"If the descending aorta or the inferior vena cava is injured, he does not fall immediately, but very soon after the shot, on account of the great hemorrhage. The 'Hohlschuss' is considered to be a bad one by the hunters, because by it they do not secure the game. It is also of no great consequence, because no surgeon comes to the rescue with fingers and probes, which carry corrupting causes into the wound."

H.: Allow me to suggest also that neither spray nor antiseptic dressings are at the service of the poor stag. "Pity 'tis, 'tis true." This is a point for the open method. To go on:

"Equally also the game is not killed or secured when it receives a shot that only wounds the spinous processes. In this case the stag falls because the hinder extremities are paralyzed momentarily by spinal shock. When the hunter approaches, however, the stag struggles forwards for some distance like a seal, with his forelimbs, and then suddenly springs up, and on all fours he runs away and is quickly out of sight."

H.: If the deer is so soon out of sight and if also those who have received the Hohlschuss escape, how do you know whether they die or not? Are they not as likely to suffer, and to languish, and to die in their solitudes, with such injuries, as human victims do in the open day? The laborious preparers of anatomical specimens, both human and comparative, so numerous in Germany, should be able to show some specimens illustrating recoveries of the kind the Professor mentions. I believe they would be very rare from the stag.

As to man, the matter has been gone over so thoroughly by most competent authorities that it is unnecessary for me to burden you with the tedium of statistics. Museums have been ransacked and records have been searched. I have done something at it myself, and notwithstanding the Professor's assertion that there are examples enough of recoveries from such wounds as that of the President, I feel no hesitation in here challenging him to produce a single *human specimen* unquestionably proving a recovery from a PERFORATING *gunshot wound of the body of a vertebra.* This deer note also requires further criticism. A shot is spoken of by which neither the viscera, nor the *great bloodvessels*, nor the spinal cord, are wounded. What does the Professor call the splenic artery two and a half inches from its origin at the cœliac axis, where it was wounded? I call it a great bloodvessel. I have prepared and mounted many a one, and we all know what a striking idea of great vascular supply to the spleen and neighboring parts is given by specimens of it. This artery wound was enough of itself to determine a fatal result.

To go on with the conclusions. E.: "2. The putrefactive ichor (verjauchung) cannot be laid to the ball, as it appears to have carried no septic substance into the wound, for it was already encapsuled and the neighboring part of its track was obliterated, that is, healed.

"3d. Therefore the foulness, the putrefying causes of the wound, must *have been brought in from without*, and for this, different points in the treatment are to be accused!"

H.: Is it logical in the search for the causes of phenomena, to abandon obvious and all-sufficient ones, and to substitute those which are vague, unproved, and theoretical? What a blessing it is to live and learn! In 1868, in the *Pennsylvania Hospital Reports*, in a paper called a "Contribution to the History of Toxæmia," I give an account of how I was poisoned and made seriously sick, from suddenly inhaling the fumes from an outburst of ichor, that gushed forth when I plunged my knife into a huge gluteal abscess. Innocently thinking that inward causes, possibly germs, may have been at the root of the trouble, I say, "we may imagine a micro-photograph taken of the material just as it gushes forth, picturing myriads of spores rising to a certain height and then falling dead like melting snow-flakes. The hapless victim who chances to be in the first part of the stream, catches up the living material, and affords a bed for its nourishment and propagation. Who knows, but what we may some day see such a photograph? Stranger things have happened."

My hopes of ever seeing such a picture have vanished, for I find I was altogether wrong. The spores were going the other way! I am told that, without having taken antiseptic precautions, the moment I made my cut, a myriad host of cocci rushed for the wound, and that some cowardly divisions as they passed me by, sought refuge in my mouth and air-passages, and insidiously poisoned me with their foulness. The invisible contest with the main army must have been fearful and altogether without the ramparts, and without quarter, for the gluteal sortie was successful, as the parts healed kindly and there was no evidence of prisoners. Notwithstanding my enlightenment, I have still a lurking belief that it was what came out of that man, and not what went into, or tried to go into him, that defiled both him and me.

To continue, E.: "The different points in the treatment that are to be complained of are:

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"1st. The immediate examination of the wound with button probes and fingers, which were probably not disinfected (without antiseptic precautions).

"2d. The repeated examinations on the third day by several of the surgeons (probably so)."

H.: We have already dealt with this point.

"3d. The entirely insufficient antiseptic treatment of the wound (deficient in the technic of dressing).

"4th. The *squeezing* out of the wound undertaken from the 21st of July on."

H.: Nowhere, my dear Esmarch, in your synopsis of the record, nor in the record itself, does the word *squeeze* occur, but you take the deliberate liberty of substituting, in your summing up, "Ausquetschen" (to squeeze), for "Ausdrücken" (to press), and Bliss says, *gentle* pressure in one place, and pressure in another. Now, if you knew our beloved Dr. Agnew as we know him, you would know that he would not allow himself to *squeeze* any kind of wound, to work harm; nor would he allow others to do it if he could prevent it. In practice and in precept, he is most earnest against roughness of any sort. Shall I tell you, though, what I know he thinks? He thinks that, for a first-class squeezer, there is nothing equal to an Esmarch bandage, and it is on account of this very squeezing property that I have often heard him utter warning caution as to its use.

E.: "5th. After this the daily probing and syringing out of the wound with unsatisfactory antiseptic fluids (obsolete disinfection methods)."

"6th. The neglect of a radical division into the pus-cavity (8th August)."

H.: From Dr. Bliss's account, it was in my opinion radical enough, and Dr. Agnew writes to me, December 27, 1882, "free incisions had been made, one *five* inches in length, opening up freely the post-peritoneal space of the lumbar region, in order to favor drainage, which was also assisted by means of drainage-tubes." What more the Professor would have I cannot imagine. He appears to find fault here for not doing enough, and later on we will find him blaming the attendants for doing too much.

After noting the metastatic inflammation of the parotid, which he says did not advance to a regular metastatic pyæmia, the Professor goes on to say that "The President did not die of pyæmia, but of a relatively small hemorrhage, after his powers had become exhausted by septic fever, by decubitus, by bronchial catarrh, and by hypostatic pneumonia. The hemorrhage followed a laceration of the splenic artery, which perhaps may have been caused by the ball, or by a splinter of bone; but probably it gradually formed later, under the influence of the ichorous degeneration acting upon a place contused by the ball, or against which a splinter of bone had been *squeezed* (*gequetschten Stelle*). Before the fatal hemorrhage, probably, a spurious aneurism had formed, which burst under the influence of the ichorous degeneration. If suppuration had not set in, the injury to the artery might not have produced any evil consequences."

H.: Why depreciate the hemorrhage by calling it relatively small? The record states that, besides some bloody fluid, the coagula which were gathered measured nearly a pint. Is it likely that a wound four-tenths of an inch long in so large an artery as the splenic would have healed spontaneously under any circumstances? Who of us here to-night, apparently in full health, would give much for his chance of life if he knew that there was suddenly thrown into his abdomen a pint of blood from an ulcerated splenic artery? Of the two, I would rather take my chance from a perforating gunshot wound of a vertebral body. Either would be enough to kill; our poor President had both conditions to contend with, and yet there are those who say he ought to have got well if he had had a fair chance.

I notice that the Professor does not say the blood was pushed out of the arteries after death by the embalmers' injection. He knows better than that!

To go on, E.: "It appears, therefore, that our colleagues on the other side of the ocean have not regarded our admonition as to the leading principle in the first treatment of gunshot wounds: 'Do no harm!' and the beautiful observations of Pirogoff, Klebs, Reyher, Bergmann, and others, upon the healing of the most serious gunshot injuries without suppuration, have made no impression upon them."

H.: That is fine! All we have to say is, that we have had a *few* gunshot wounds on this side of the water, and that we have made most beautiful observations upon them, and the outcome of those observations is that some get well and some do not.

E.: "The public, indeed, think that the ball is the most dangerous thing, and the soldier is happy when the ball which has been cut out of him is placed in his hand. The surgeon, however, should know that the ball itself in most cases does no harm. The real injury is what it has inflicted in its course, and what is superadded comes mostly from the fingers of the examiner."

H.: This is somewhat strongly put as to the last proposition, or else German fingers must be peculiar. With the other part I, and I think most of us, are in full accord, both as to practice and precept. I have written and taught in almost precisely the same words and to the same effect.

E.: "Practising American physicians seem, under the pressure of public opinion, to have assented to the proposition that much too *little* was done. But, according to my view, they did not do too little, *but much too much!*"

H.: It would be a fair logical sequence that, between these two extremes, just enough was done and no more!

Here is the climax and conclusion of this remarkable address:

E.: "If they had left the search for the ball entirely alone, and immediately after the injury treated it with *true antiseptic dressings*, the President probably might have been now alive, even as our Emperor, of whose numerous shot grains Langenbeck did not cut out a single one."

H.: Now, my dear Esmarch, is not this *ganz durchsichtig?* Is it not most uncommonly diaphanous? For one moment to compare the bird-shot peppering of the Emperor with the frightful, deadly wound of the President! Is it your regard for the "divinity" that "doth hedge a king" that makes you do this? As I write, I have before me German newspapers, and an extra of the day, containing full accounts of the attempt on the Emperor and the after-history. On the 2d of June, 1878, towards three o'clock in the afternoon, the Emperor, whilst taking a drive, was wounded by two discharges from a double-barrelled shot-gun, loaded with shot, and fired from the second-story window of house No. 18, Unter den Linden.

Many of the shot were warded off by the Emperor's helmet, of which he soon afterwards affectionately said, "How often, old helmet, hast thou done this duty for me! and now again thou hast protected my life." Nevertheless, there were wounds in the face and both arms, but none of any gravity whatever. A quarter of an hour after the outrage the Emperor took a cup of strong tea, and at half-past three Count Perponcher appeared upon the landing-place of the palace, and communicated to the assembled officers and cadets the facts that his Majesty had received three wounds from grains of shot—one upon the left temple over the eye, a second upon the cheek, and a third in the hand. He gave also to

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the feverishly excited masses the comforting assurance that there was no danger to the life of the Emperor.

The royal patient kept his bed for a very short time, and on the 10th of June, 1878, the eighth day after the injury, at 9.30 o'clock in the evening, the following bulletin was issued by his medical attendants, Drs. von Lauer and von Langenbeck and Dr. Wilms:

"His Majesty the Emperor feels himself strengthened by a night's rest, and after the dressing was finished he left his bed for his arm-chair. Most of the wounds are healed. The arm, however, is still swollen, but is not so painful on being moved." The case went on without a drawback to complete recovery.

To compare this case with the President's! Full well you know, Dr. Esmarch, no one better, that if two mortals of the baser sort, wounded respectively as these two great men were, had been brought together into your hospital, that the one, after the requisite examination and dressing, and possibly after a few days' detention, would have been consigned to the care of the merest tyro in the out-ward; while the other would have claimed all of your knowledge and skill as a surgeon, and all of your sympathy as a man; and, although you may have appeared like impassive steel at his bedside, your heart would have bled at his imploring looks for that aid, which you were powerless to give, beyond mere temporary help; and some morning, coming and finding his place empty, you would have thanked God that relief had come for both of you at last.

When I said my discourse would be devoted to a few of the occurrences of the past year, I had no idea that one of them would take up so much of your time. The *great* event of the year, as important, if true, to surgery as to medicine, was the announcement that Koch, in Berlin, had discovered the origin of tubercle to be a bacillus, which he named the bacillus tuberculosis. This event also was heralded by cable and wires the world over. I had intended to give the discovery more than a passing notice, and I might dwell upon the excitement which it caused among all classes, scientific and lay, especially though in Germany.

No one has more graphically pictured the story than Dr. Formad, in his lecture before the County Medical Society, on October 18, 1882. The bacillus was discovered. The emperor saw it and fled. Virchow was driven back. We are told by an imperial order that in military hospitals phthisical patients were isolated. The community was in a ferment. Koch's conclusions are, however, not unchallenged, as the masterly labors of Formad prove.

More interesting and instructive reading than his lecture, I do not know. Formad admits the bacillus, but denies the claim for it as a cause, and right well, by experiment and reason, does he sustain his propositions.

And now there is another antagonist at hand. One whom some of us know well, Dr. H. D. Schmidt, a former close colleague of Dr. Leidy and myself, in this city, but now of New Orleans. When one sees that man, broken in health, lame, and with hands terribly crippled with rheumatism, through exposure in the field (for this was his condition on his last visit here), one is lost in wonder at his enthusiasm, and at the way in which he produces his beautiful work. He writes me, under date of October 20, 1882, in a tone of apology, for not having sent certain preparations for the Mütter Museum: "Just now I am very busy in preparing a paper on the bacillus tuberculosis of Koch, with which I have been occupied the last three months. I have made very extensive microscopic researches on this subject, during which I prepared and examined several hundred sections of tuberculous lung tissue taken from a dozen fresh cases, besides other fresh sections which I had on hand from my studies of the miliary tubercle during last fall and winter, and *I can say now that Koch's bacillus tuberculosis* appears to be nothing else but *a fat crystal* formed from the fat globules in the degenerating tubercular cells. I have found this pseudo-bacillus even in pathological neoplasms containing fattily degenerated cells. But my paper will tell you all about it." Here, then, is a man who has the temerity to deny the very existence of the bacillus which the emperor saw.

I would suggest whether it can possibly be the same thing that all of these men are looking at? Koch's and Formad's bacilli increase and multiply rapidly under nurture and cultivation. Schmidt's, if they are fat crystals (pseudo-bacilli), cannot surely do this.

And now I hear some specialist say, after the abrupt manner of Esmarch, "So *you* had intended to take up and discuss Koch's bacillus? What do you know about it?" My friend, did I say I *knew* anything about it? What do you *know?* I have a right to an opinion, have I not? I, who long ago put in a most touching appeal for maggots! Having noticed wounds healing kindly under masses of maggots, I reflected, that they were scavengers, eating only dead material, and so converting harming matter into harmless living substance. We have to get rid of them, it is true, because they will *persist* in getting into *wrong* places, and so give an infinite amount of trouble. Now are the plaguing micro-organisms of which we hear so much any more than consumers of dead material, serving (as we find them everywhere), a beneficent end, so long as they do not get into the *wrong* places? Molecular death is going on continuously in all living tissues. In the nice balance of perfect health, the results are removed so completely through the blood and lymph-channels (so beautifully described by Formad), and by other means, that there is no accumulation. When, however, disturbances arise, as inflammations, for example, from any cause, abundant *necrotic* products are the consequence, and these accumulate faster than they can be removed. Then come in the migratory micro-organisms. It is a question of food, and is consonant with what we know of the movements of hosts of higher animals, possibly also of plants, and sometimes of man himself. As these organisms get into the *wrong* places, they, accumulating with great rapidity, help to choke further and irritate what has already started on an evil course, and so they become secondary and very fruitful causes of disease. We may comprehend, from Formad's views, how scrofulous subjects with narrow lymph-channels, are more readily affected than others. *To my mind there is no positive proof as yet of the organisms being* SPECIFIC AND PRIMARY *in their operations.* I must say, if they are so, I do not comprehend how any of us are alive.

There is none the less reason to get rid of them, or to keep them out, in disease or injury. The *practice* of antisepticism does not require a theory of a fixed character to make it good, as Esmarch seems to think, nor need it be limited to one method. From the germicide sprays and liquids and the cumbersome details of the dressings of Lister, we may come to the use of simpler methods equally as effective.

It is truly astonishing how the medical, and the German medical mind especially, is impregnated with this subject. It really does seem to be a bacillary craze. I have before me as I write, the November, 1882, number of Volkman's *Klinische Vorträge*, containing an essay by Theodor Kocher, "Upon the Simplest Means of Obtaining the Healing of Wounds by Agglutination Without Drainage-tubes."

This writer discusses in a very thorough manner

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the various articles used in antisepis. The merits of carbolic acid, iodoform, salicylic acid, and the chloride of zinc, are reviewed. His own purpose is to advocate the use of the subnitrate of bismuth (wismuth), which he does with great care and detail, and gives experiments and illustrative cases. It is not my intention to consider the matter here, but I hope to give this substance a trial. Kocher says that it is undisputed that a great number of wounds heal by Lister's carbolic antisepsis process, perfected by Volkman, but it is also certain that this often does not happen. "I have seen," he says, "colleagues who tenaciously hold to the spray, with all the attributes of the Lister-Volkman technique, here and there, have the most grave cases of infection, after complicated operations." Again, and here is a refinement to worry us! "As it is proved that with different forms of inflammation different micro-organisms come into action, that simple septic occurrences upon the wound and suppurations are not to be laid to the *same* coccobacteria, so it is to be inferred that by recent wounds and by already existing suppurations, the same antiseptic measures are not to be used."

What are we going to do about it? Different kinds of game, different kinds of ammunition. Buckshot for one, No. 12 for another. Before the surgeon can go to work, he must know the season, and what kind of germs are about, before he can select his germicide. The strict antiseptist is most skilled in strategy. He takes care of his base, and keeps the country behind him open. The theory must stand, and whatever mishap occurs is not due to it, but to incompetent officers, or failure in details.

It is the fashion now for writers and thinkers to express their ideas by epigrammatic generalizations, thus: Formad (agreeing with most recent pathologists)—"No inflammation, no tubercle." Koch—"No bacillus, no tubercle." I shall venture one which is much wider in its application, as it is not confined to tubercle alone, and according to the ideas I have expressed, it will meet the very great majority of cases, NO MICRONECROSIS, NO MICROMAGGOTS; *that is, food mostly in the shape of necrotic products, precedes the advent of the micro-organisms, however these may originate, whether animal or vegetable, and in disease these necrotic products first, plus the organisms second, play havoc with their environment.* I know these views will be regarded as obsolete by some, and was disinclined to express them, until I was delighted to find that Formad, and I think also Dr. Joseph Leidy—and if so, I wish no higher authority—essentially hold them. Thus, Formad says, "The presence of bacilli (so far as our present research goes) is *secondary*, and appears to *condition* the complete destruction of the tissue already diseased and infested by them, and this destruction is in direct proportion to the *quantity* of the organisms, which thus regulates the prognosis. The tubercular tissue seems to serve merely as a nidus for the growth of the bacillus."

What do I know about this, indeed? Please remember, friend specialist, I have put away my microscope for the present, and have turned dialectician. I am much further and much deeper than you! You, surface searcher, *go on* with your mucous membrane; I have reached the inner consciousness, and through it, sitting, like old Teufelsdreck, "alone with the stars," I may yet reveal a bacillus that will make you tremble.

No one can feel more relieved than I am at having passed safely through with the didactic. Now, do not despise me if I turn traitor at once, and return to my old love, the demonstrative. As soon as our President has dismissed us, the west room of the museum downstairs will be thrown open. There, among other objects of interest, you will find vertebra and vertebral bodies, and models illustrating the line of the President's wound; also photographs of it sent to me by Dr. Reyburn immediately after the autopsy. You will see splenic arteries, human and comparative. Judge whether, if wounded, a hemorrhage from one of them would be a trifle. You will also find Esmarch's portrait[1] and an Esmarch bandage—remember that this is a good thing, a very good thing; but how it can squeeze!—try it. I am sorry I have nothing to illustrate the wound of the Emperor. If it were reed-bird season, I could easily have had a boy up from the hospital, but reed-bird season is past.

Scientifically speaking, these objects are coarse compared to what is prepared for you in the east room of the library. There, under powerful miscroscopes, you will see Koch's bacillus by Formad, Schmidt's pseudobacillus, which I understand him to say is identical with Koch's. It does not appear to me to be so, but the special microscopists will have to settle this. You thus find that, even with them, seeing is not always believing, a point in favor of the didactic. The slides of Schmidt only arrived on Saturday evening, and have not been seen here before. You will also see live bacilli and other forms of bacteria. The microscopic exhibition will be almost entirely illustrative of the germs which are now considered to be such fruitful causes of disease, but which, as you have learned, some of us think are secondary.

Some of you of the laity may smile at scientific enthusiasm when you come to look at these minute rod-like lines, averaging, say the four-thousandth of an inch in length. But when you reflect what importance has been given to them by pathologists, and what influence they have already had, on German social life especially, you will understand the great interest taken in them. Some of the most noble and tender traits of humanity threaten to be undermined. The consumptive who has been heretofore lavishly loved and cared for, and nursed with tears and parted from with anguish, is to be isolated and shunned as a leper, if such doctrines as those of Koch prevail. Is it any wonder that some of us wish to look further before we adopt them?

NOTE.—There is authority enough for one in an address of this kind to allow the fancy some play, instead of keeping strictly down to the dry detail of science. In fact, the imagination in a right direction may be a great aid in developing scientific truth.

Tyndall has fully recognized Lucretius, and Goethe was prouder of his science than his poetry. Dr. J. Gibbons Hunt had under two microscopes at this meeting, what he called the "dance of life," and the "dance of death." Under one glass were swarms of bacteria (bacillus, and other varieties), fairly seething with life. Under the other were inorganic particles, which had been kept sealed up for two years, and yet they were in very active movement. A curious observation made by Dr. Hunt was, that these atoms were getting smaller and smaller as time went on. Whenever I see this life movement, and death in life, I think of the spirit lines in Faust. Goethe threw science and poetry into the same crucible, and subjecting it to the heat of his imagination, he poured out immortal ingots:

In the sea of life, and the storm of deeds
To and fro I rave,
Entwine in commotion
Birth and the grave.
An eternal ocean,
Webbed fabric of change,
Life's glowing range.
So on time's humming loom the warp I receive,
And the living garments of Godhead I weave.

[1] Ueber Land und Meer, zweiten Heftes, 1883, No. 4.

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ORIGINAL ARTICLES.

OPTICO-CILIARY NEUROTOMY, UNDER THE ANÆSTHETIC INFLUENCE OF THE BROMIDE OF ETHYL,

IN WHICH ETHYLIZATION AND OPERATION DID NOT OCCUPY MORE THAN TWO MINUTES.

BY JULIAN J. CHISOLM, M.D.,
PROFESSOR OF EYE AND EAR SURGERY IN THE UNIVERSITY OF MARYLAND, BALTIMORE.

FOR many months I have been using the bromide of ethyl daily for all operations which I could speedily complete, and, having experimented with this new agent over three hundred times in the past year, I am beginning to feel that I know how to use it and what to expect from it. I have found that its action is so very evanescent that it can never take the place of chloroform or sulphuric ether for any surgical operation which requires some time for its performance; but for all quick work, which can be done in one or two minutes, the use of this anæsthetic agent leaves nothing to be desired. For this purpose it is very far superior to any other known anæsthetic. As the result of my every-day experience—for I use this agent now in every case in which pain enters as a factor—a drachm of the bromide of ethyl, when properly used, will put any patient into deep narcosis in less than a minute by the watch. Some of my patients have been narcotized fully in twenty-two seconds. This deep anæsthetic sleep will not last more than from one to two minutes. From this narcosis the patient awakes suddenly, as if from ordinary sleep, with brain as clear as before the inhalation, and with neither nausea, headache, nor heaviness of any kind. I find the use of this anæsthetic a great saving of time in my office surgical practice, and have often had patients ethylized, operated upon, restored to consciousness, and leaving my office, feeling perfectly well, within ten minutes from the time they entered the office door.

These really magical effects must be obtained from the first inhalation, and what I will call primary anæsthesia. Should the operation be protracted and a second, and even a third dose of the bromide of ethyl be inhaled, then I find nausea, vomiting, and heaviness in all respects, as if chloroform or ether had been used. Under this repetition the bromide of ethyl loses all of its advantages. To use it successfully and take advantage of this evanescent narcosis, one must be methodical and have every preparation for an operation made in advance. Should the surgeon have to seek instruments, even from a contiguous table, he may find the patient wide awake on his return. The report of the following case is constantly repeated in my daily experience with the beautiful working of this wonderful agent.

Mr. C., aged 55, consulted me with a letter from his family physician, who lives 200 miles from Baltimore. For five months he has from time to time suffered fearfully with his head and his left eye, the sight of which he has entirely lost, no appreciation of light even remaining. From the severity of his suffering often with nausea, the case was called a cerebral lesion, and the most serious results feared. I found the case one of acute glaucoma not recognized, and with all of the distressing symptoms secondary to the disease in the eye. Had an iridectomy been performed five months since, possibly the sight would have been saved and all of the suffering prevented. Now either the eyeball had to be sacrificed to end the frequent attacks of pain, or a division of the eye nerves made as they enter the back of the eyeball. This latter operation was recommended to him and he accepted it.

The patient was put on the table with the intent of being chloroformed, but thinking that I could manipulate rapidly enough to give him the benefit of the bromide narcosis, I determined upon the use of this anæsthetic, which I had just administered to a lady for the removal of a tarsal cyst.

The instruments necessary for the operation were all placed on the table in the order which they were to be used. The patient was told to take full breath when the inhaler was placed over his face, and was made to practise full inspiration in advance. A towel, between the folds of which paper had been put, was made up into a small nearly air-tight cone. Into this was poured about a drachm of the bromide of ethyl and immediately inverted over the nose and mouth of the patient. Notwithstanding the stifling sensation from this saturated atmosphere of ethyl vapor, he commenced full inspirations. By the time he had taken the eighth inspiration I found his conjunctiva insensible to reflex action. He had not been inhaling the ethyl more than thirty seconds when deep narcosis was fully established.

The operation was at once commenced. The lids having been separated by the stop-wire speculum, an incision was made in the conjunctiva on a line with the lower border of the inner rectus muscle, extending from the edge of the cornea to the caruncula. A second clip with the scissors divided the fascia and made a free opening between the inner and lower recti muscles. Into this opening the heavy curved scissors was introduced. Using it as a probe, the resisting optic nerve was soon found. Drawing outward the point of the scissors, the blades were widely opened, the optic and all contiguous ciliary nerves were caught between them and severed. A second opening and closing of the scissors, then again using it as an explorer, its unrestrained movements in the muscular cone behind the eye showed that all the structures entering the back of the eye-ball including ciliary nerve, arteries, and veins, had been divided. With the withdrawal of the scissors blood welled up from the wound in the conjunctiva. The speculum was immediately removed, a firm cotton compress applied and tightly secured by a bandage, and the operation was completed. It took much less time to manipulate the instruments than it has taken me to describe the process. From the beginning of the ethylization to the tying-up of the eye the whole operation had not occupied a minute and a half. During this period the patient had been sleeping undisturbed, with a strong pulse, quiet respiration,

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and a good color of face. I had hardly laid down his head, after securing the compress, when he awoke, and was very much surprised to find his head bandaged. He got off from the table at once and within three minutes from the time that the ethylization was commenced he was walking with a firm tread, unassisted, from the operating-room of the hospital to the contiguous ward, from which he seemed to have just come out.

To ethylize efficiently, a saturated vapor must be used, and the inhaler *must not be taken from the patient's face once the apparatus has been put over the nose and mouth.* Hold it down firmly for a very few inspirations, and your patient will be in condition to have any painful manipulation carried out.

In twenty-two seconds and with six inspirations I have established deep narcosis.

In no one case of the three hundred has it required more than 60 seconds.

In no case did deep narcosis from a primary inhalation exceed two minutes in duration.

In the midst of a large surgical practice, as a specialist in eye diseases, I find constant daily use for the *deep* and *very evanescent* narcosis of the bromide of ethyl. I use it for the passing of nasal probes, splitting of the canaliculi, scraping out the contents of tarsal cysts, opening lachyrmal abscesses, cutting defective muscles in squint, removing the elliptical piece of skin of the lid in ptosis or entropion, performing iridectomies for glaucoma, or for the making of artificial pupils, and, as in the case just reported, for optico-ciliary neurotomy.

It needs confidence in the safety of the anæsthetic to push it in its concentrated form; and I am convinced that in no other way can the best effects of a primary anæsthetic be produced.

It also requires quick movements on the part of the surgeon to complete the operation before the narcosis passes off. I have frequently performed the operation of squint before the medical class at the University of Maryland clinic in less than sixty seconds, this period including the whole time occupied from the beginning of the ethylization to the completion of the tenotomy. In all of the special operations which I have enumerated, the operative procedure must have been completed within two minutes to have protected the patient from all knowledge of what had been done, so that he should feel nothing of the painful manipulation.

THE MICROCOCCUS OF GONORRHŒAL PUS—INFECTIVE VIRULENCE NOT DUE TO THE PRESENCE OF THIS PARASITIC MICRO-ORGANISM.

BY GEO. M. STERNBERG, M.D.,
SURGEON, U. S. A.

(*Concluded from p. 70.*)

REMARKS UPON MORPHOLOGY, DISTRIBUTION, ETC.

THE method which I have found most satisfactory and convenient for demonstrating the presence of micro-organisms in blood, pus, or culture-fluids, is the following. A small quantity of material is spread out upon the surface of a perfectly clean glass cover, so as to form a uniform and extremely thin layer; this may be conveniently done with the end of a clean glass slide. This is allowed to dry, spontaneously or by the aid of gentle heat, and is then stained with one of the aniline colors. Methyl violet is the staining reagent which I most frequently employ; a very good solution for this purpose is the common violet ink, for sale at every stationer's.

A drop of this, applied to the thin glass cover, will stain the micro-organisms attached to it in a very brief time. A few seconds will usually be sufficient. The staining fluid is then quickly washed away in distilled water, and the specimen is ready for examination under the microscope.

A little gonorrhœal pus, taken from the meatus urinarius of a recent case, treated in this way presents the appearence shown in Figure 1. The am-

FIG. 1.

plification in this and in the other figures illustrating the present paper, is one thousand diameters.

The pus corpuscles adherent to the thin glass cover are flattened, and present a more or less irregular outline, as the result of the manipulation—spreading and drying—to which they have been subjected. The nuclei — so called—are deeply stained, and appear as violet-colored masses, often elongated, and presenting the aspect of a protoplasmic mass undergoing division.

That these masses are composed of living protoplasm, and the unstained portions of the pus corpuscles of "formed material" (Beale), seems probable from the fact that they are stained by carmine and the aniline colors. But it is difficult to accept the statement of the author named, that "The white-blood corpuscle is one thing; the pus corpuscle a very different thing,"[1] after having examined a specimen of pus, and a drop of blood from the finger, by the method above described. The red corpuscles lose their color, and can scarcely be seen after being subjected to this treatment; but the white corpuscles become conspicuous on account of their deeply stained nuclei, and resemble exactly pus corpuscles treated in the same manner.

In addition to the stained nuclei, a certain number of the pus corpuscles are seen to contain small spherical or slightly oval bodies, stained even more

[1] The Microscope in Medicine. 4th ed. J. & A. Churchhill London, p. 304.

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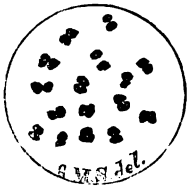
deeply than the nuclei, grouped in pairs, in fours, and, rarely, in chains of three or four. A majority of the pus corpuscles are free from these parasitic micrococci; some contain them in small numbers as in the centre of the field in Fig. 1; and occasionally a corpuscle is completely filled with them, as shown on the left of the same figure.

A little pus containing these micrococci introduced at the moment of its escape from the meatus into a flask containing a suitable culture-fluid, sterilized, and subsequently placed in the culture-oven for twenty-four hours, or less, at 100° Fahrenheit, causes this fluid, which was previously transparent, to assume a milky appearance. Microscopical examination shows that this is due to the presence of micrococci, joined mostly in pairs, as shown in Fig. 2, which pervade the fluid to such an extent that the smallest drop contains a multitude of them.

FIG. 2.



The fact that they are joined in pairs and that they are found throughout the culture-fluid, shows that they are in active growth and are multiplying rapidly by spontaneous fission.

Later, when they have exhausted the material in the limited quantity of culture-fluid required for their nutrition, their active life ceases and they sink to the bottom of the flask, where they are seen *en masse* as a white deposit, while the supernatant fluid is again transparent. The same phenomena occur when, instead of pus containing *Micrococcus ureæ*, we use a drop of blood from a septicæmic rabbit, just dead, to inoculate our culture-fluid. But in the latter case, instead of assuming a milky appearance during the active growth of the septic micrococcus, which now pervades our culture-fluid, we have an *opalescence* sufficiently distinct, but presenting to the eye a recognizable difference when compared with the other. This difference doubtless depends upon the fact that the septic micrococcus has more nearly the same refractive index as the culture-fluid in which it is contained, or, in other words, is more transparent than *Micrococcus ureæ*.

A microscopical examination shows very decided morphological differences in the two organisms, which, being constant, furnish specific characters as definite as are presented by many plants much higher in the scale. The septic micrococcus, as it appears when in active growth in a culture-fluid, is seen in Fig. 3.

It is impossible in a woodcut to represent the aureola of transparent material which is a marked character of this micrococcus. This is well shown in the photo-micrograph illustrating my paper on septicæmia (*loc. cit.*) This aureola is more pronounced in the blood, and in cultures made in blood-serum than in those in *rabbit-bouillon*, which is the fluid in which I have commonly cultivated this organism.

FIG. 3.

The most important distinguishing character of the two species of *micrococcus* under consideration is found in the fact that one—the septic—divides in one direction only, thus forming a linear series of two or more oval elements attached to each other in the direction of their long diameter; while the other commonly divides in two directions, the elements being arranged in pairs, as seen in Fig. 2, or in groups of four, as shown in Figs. 1 and 5, resulting from the transverse division of each of the oval elements, arranged side by side, constituting a primary pair.

These micrococci are not so easily distinguished, the one from the other, when, having exhausted the nutritive material necessary for their active development, they sink to the bottom of the culture-flask.

Under these circumstances, microscopical examination commonly shows little groups of spherical bodies, having about the same dimensions, and which resemble each other so closely that, as in the case of the seeds of higher plants (*e. g.*, turnip and cabbage), an expert might easily be at fault in attempting to distinguish one from the other. But by the experiment of planting in proper soil, the fact that essential differences exist is readily established in both cases. And, as in the higher plants, it may be shown that, *after the material required for the development of one micrococcus has been exhausted in a certain quantity of culture-fluid, the other species will develop abundantly in the same fluid upon the introduction of seed*-micrococci. This fact I have recently demonstrated experimentally.

My observations show that the microscopic plants under consideration *vary considerably as to size in the same culture-fluid, and in different media present marked differences in this respect*, due to nature and amount of pabulum, temperature, etc., in short, to conditions in the environment, and favorable or otherwise to the growth of the plant.

These differences, when we consider the comparative size, are as well marked as in higher plants, and give ample scope for the development of varieties and species, under the operation of the laws of "natural selection."

In Figs. 4 and 5, this difference in size is very apparent. In Fig. 3 we have *Micrococcus ureæ*, from urine which has undergone alkaline fermentation; and in Fig. 4, the same organism derived from gonorrhœal pus (third culture).

A mere inspection of these figures might lead to

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the conviction that we have here two different micro-organisms; but extended observations and the experiments already detailed, have convinced me that such is not the case, and that, within certain limits, differences in size cannot be accepted as specific characters among the micrococci, any more than in the case of turnips and cabbages.

FIG. 4.

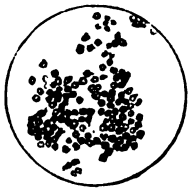
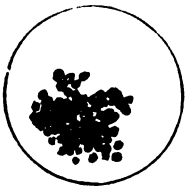


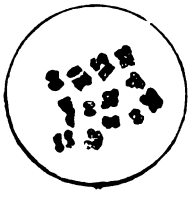
FIG. 5.



By the use of high powers and staining reagents, these differences become very apparent, and micrococci from the same source and in the same field of view may differ in diameter as much as one-half. Measurements, therefore, have only a comparative value and it is easy to understand how Pasteur has given the diameter of *M. ureæ* as 1.5 μ, while Cohn has placed it at 1.2 to 2 μ.[1]

The limits of variation are even wider than stated by the writer last named. In Fig. 6 we have what

FIG. 6.



I believe to be the same micrococcus from a different source, viz., from a culture in acid malt-extract inoculated with human saliva.

This micrococcus is found very constantly in the buccal secretions, where it is often seen in groups attached to or parasitic within the shed epithelial cells. I have also frequently observed it in the sputa of tuberculous patients, and, indeed, my studies lead me to believe that it is one of the most abundant and widely distributed of micro-organisms. That it does not, under ordinary circumstances, multiply in the blood or tissues of a living animal, and consequently is not a pathogenetic species is shown by the experiments already recorded, and by the fact that when human saliva containing it, as well as many other micro-organisms, is injected beneath the skin of a rabbit, it is not found associated with the septic micrococcus in the blood of the animal examined immediately after death. This experiment, therefore, affords a ready means of obtaining a pure culture of the septic micrococcus, while from gonorrhœal pus we may obtain an unadulterated stock of *Micrococcus ureæ*, the associated micro-organisms commonly found in normal saliva, or upon the mucous membrane of the healthy urethra, being excluded in one case by cultivation in the body of a living animal, and in the other by some peculiarity of the pus which favors the development of this particular organism.

The photo-micrograph from which Fig. 6 is drawn was used to illustrate my paper upon "Bacterial Organisms Commonly Found upon Exposed Mucous Surfaces," etc. (*loc. cit.*), and I then described it under the generic name of "*sarcina*," with an interrogation point as to the species. This determination was made in accordance with the definition given in Magnew's work ("The Bacteria," *loc. cit.*), which is as follows: "The *sarcina* can be considered as bacteria in which the division occurs by two perpendicular partitions, in such manner that multiplication takes place in two directions."

I have already stated that this mode of division occurs in the micrococcus of gonorrhœal pus, which I have shown to be identical with *M. ureæ* Cohn. This organism may also multiply by division in one direction, only so as to form chaplets of five or six elements. It is evident then that the character referred to—division in two directions—does not belong exclusively to *sarcina*, or that Cohn was mistaken in referring the organism in question to *micrococcus*, to which genus he gives the following characters:

"Cells colorless, or scarcely colored, very small, globular or oval, forming by transverse division filaments of two or several articles, in form of chaplet, or united in cellular families, or in gelatinous masses, all deprived of movement."

INFLUENCE OF TEMPERATURE, ETC.

As the result of a considerable number of experiments I have fixed the thermal death-point of these two species of *micrococcus* at 140° Fahr., the time of exposure being ten minutes. A lower temperature and longer exposure is, however, destructive of vitality. Thus *M. ureæ* failed to multiply in a sterlized culture-fluid after being exposed to a temperature of 130° for thirty minutes in one experiment, and to the same temperature for fifteen minutes in a second. But both species survived a temperature of 130° for ten minutes (experiment several times repeated, with the same result).

These results correspond very nearly with those obtained by other observers who have experimented with different micro-organisms *provided these were in an active growing condition, and no spores were present.*

Thus Cohn found that *Bacillus nuptilis* multiplies freely at 45° to 50° C. (113° to 122° Fah.), while at a ten perature of 50° to 55° all reproduction and development cease, and the filaments are killed.[1]

Chauveau, in a recent communication to the French Academy upon "Attenuation of Virus by Heat (method of Toussaint)," says that nine or ten minutes' exposure to a temperature of 54° C. (129.2° Fah.) is sufficient to kill completely the bacilli in anthrax blood.[2]

[1] The Bacteria. Little, Brown & Co., Boston, 1880, p. 75.

[1] The Bacteria, *loc. cit.*

[2] C. R. Ac. des Sciences, June 26, 1882, t. xciv. p. 1694.

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Pasteur, as the result of numerous experiments upon "diseased ferments"—bacterial organisms—which injure the quality of beer, found that "alcoholic ferments heated in beer can endure a temperature of 55° C. (131° F.) without losing the power of germination; but the action is rendered somewhat slower and more difficult. Diseased ferments, however, existing in the same medium, perish at this temperature, as they do in the case of wine."[1]

The author last named has shown that the reaction of the fluid in which micro-organisms are contained influences greatly the thermal death-point of these organisms, and that this is considerably less in an acid than in an alkaline medium.

From 98° to 100° Fah. is an extremely favorable temperature for the active growth of both of the species of *micrococcus* which are under special consideration in the present paper. The limits above and below this point at which active growth is possible I have not found time to determine, but my observations lead me to believe that the septic micrococcus is a more delicate plant than the other, and that comparatively slight variations as regards temperature and composition of nutritive medium may arrest its development. My efforts to cultivate this micrococcus for successive generations in beef tea have not been successful, while a *bouillon* made from the flesh of the rabbit furnishes a nutritive fluid in which it multiplies abundantly. I first resorted to the use of this culture-fluid upon a hint furnished by Pasteur in the report of his experiments relating to the etiology of fowl cholera. A *bouillon* made from the flesh of fowls was found to be the most favorable medium in which to cultivate the micrococcus peculiar to this disease. This sensitiveness as to the temperature and composition of the nutritive media in which they are placed seems to be a common characteristic of pathogenetic micro-organisms, and, doubtless, is the main reason for the marked differences as regards susceptibility to their pathogenetic action observed among animals of different species.

The same phenomenon is a matter of common observation among the parasitic fungi which infest different plants, producing the diseases known as smut, rust, mildew, etc. We may even have a marked difference as regards susceptibility to the attacks of a certain fungus among varieties produced by cultivation, which originated from the same stock.

In the case of the septic micrococcus this sensitiveness as to composition of medium has, nevertheless, rather wide limits, for I have been able to cultivate it both in acid and in alkaline *bouillon* (from rabbit), and also in acid urine.

Micrococcus ureæ seems to be a hardy plant which thrives in a variety of organic liquids, and is not very sensitive as regards temperature or the presence of various salts in considerable quantity, which, *à priori*, might have been supposed to be prejudicial to its development. I have found, however, that a temperature of 60° Fah. is not sufficient to promote its active growth, and that sterilized urine to which a culture-fluid containing this micrococcus has been added, remains acid and transparent for a considerable time at this temperature.

The writer has for some time past been engaged in an experimental study of the action of various germicides upon these micrococci and upon other micro-organisms, but this is an investigation involving a large amount of labor, and some time will be required for its completion.

In conclusion I beg leave to call the attention of any who may be inclined to under-estimate the value of studies of this nature to the fact that, aside from questions of professional interest relating to the *role* of micro-organisms in the etiology of infectious diseases, and the best methods of combating pathogenetic bacteria within or without the living body, biological problems of great interest are best approached by studying the vital (chemical?) reactions of these extremely minute unicellular organisms, which offer the simplest possible conditions for such studies, and which may be manipulated by the biologist by modern scientific methods with as much certainty as regards definite and constant results, the conditions being the same, as is possible for the chemist in his operations with non-living material.

Note.—Since the above was written, I have stumbled upon the following in *The Medical Record*, of Sept. 23, p. 359.

"*The Gonococcus*—Neisser in Breslau, who in 1879 published the discovery of a micrococcus which was to be found in every case of specific blennorrhœa, either of urethra or of eye, but nowhere else, has recently recorded his conviction that this "gonococcus," as he calls it, is the specific agent in producing the disease; and quotes Aufrecht, Ehrlich, and Gaffkey, the opthalmologists Leber, Sattler, and Hirschberg in support of his statements. But until recently the *experimentum crucis*—successful inoculation of the micrococci—had never been performed from the simple fact that animals are not susceptible to the gonorrhœal contagion, and human subjects have always preferred to acquire theirs in another way. Recently, however, Bokai, in Pesth, was so fortunate as to find six philanthropic students who placed their urethras at the disposal of science. With the 'gonococci' which Bokai had cultivated artificially from gonorrhœal discharge, the six were inoculated; and three had the satisfaction of exhibiting a week later a classical gonorrhœa. For one familiar with natural history of medical students, the experiment would have been far more convincing if the dauntless three had been kept in solitary confinement for a week before and after the inoculation."—*W. T. Belfield, in Chicago Medical Journal and Examiner.*

POST-SCRIPTUM.—*Experiment No. 15* (Oct. 5. 1882): A pure culture of the micrococcus from gonorrhœal pus (the thirtieth culture (?) or above) was introduced into the urethræ of two healthy men by means of pledgets of cotton wool, soaked in the fluid, which were left *in situ* for fifteen mintes.

Result entirely negative.

[1] Studies on Fermentation. Macmillan & Co., London, 1879, p. 20.

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MEDICAL PROGRESS.

BACTERIA AND THEIR PRESENCE IN SYPHILITIC SECRETIONS.—DR. MORISON, of Baltimore, who is at present working in Prof. Neumann's laboratory in Vienna, has published in the January number of the *Maryland Medical Journal* an account of the pathogenetic organisms found in the lesions of syphilis and of the non-specific venereal ulcers. The organisms supposed to be specific for syphilis were found in sections of the hard chancre, and in numerous syphilitic skin affections, always at the seat of disease and never in the general blood circulation; in this they agree with the bacilli of tuberculosis and of lepra. They are only visible when stained, and the method of staining is rather complicated; but doubtless this method will be so modified in the course of time as to be much simpler, as Koch's original method for staining the bacillus tuberculosis was subsequently modified by Ehrlich. The bacilli described by Dr. M., are short cylindrical rods. In the lithograph we notice that some of them are slightly bent, and have in places the appearance of lying together in pairs; in point of size we should say, judging from the plate, drawn under a power of × 850, that they are somewhat smaller than tubercle bacilli. The bacilli found in non-specific ulcers (chancroids) are longer than the syphilitic, are extremely thin and in the plate represented as curved; from which we would suppose that they belong rather to the group of spirochæte, and not to the true bacilli. We must disagree with the author when he says that they closely resemble the bacillus anthracis. The number of germs discovered by various observers in syphilis are many, most of them being found in the blood as well as at the seat of the lesion. No special method of staining was used to demonstrate them and subsequent investigation failed to confirm them. By this last discovery of Morison's, we see that only by the employment of the most complicated methods of staining, and the use of the now indispensable Abbey's illuminator and oil immersion glasses, can they be seen. At best, however, we fear that, although the bacilli may be cultivated with success, strict proof of their causal connection with syphilis will always be wanting, owing to the impossibility of infecting lower animals with the disease. The experiments which the author mentions —those of Martineau and Hamonic on young pigs—are so utterly at variance with former experiments, that they must be confirmed. We can only hope that this latest bacillus in the field will not share the same fate at the hands of the great New Orleans microspopists as did the bacillus lepiæ and b. tuberculosis.

ELONGATION OF NERVES.—M. TRÉLAT, at the meeting of the Société de Chirurgie held December 13th, read a report on a work of M. Badal, of Bordeaux, on this subject. Recently M. Badal has stretched the external nasal nerve in three cases of circum-orbital neuralgia, and in all three cases a cure resulted. The operation is very readily performed by making an incision near the angle of the eye, and exposing the nerve between the tendon of the orbicularis and the great oblique muscle.—*Gaz. Méd. de Paris*, December 23, 1882.

SIMPLE METHOD FOR DETECTING TUBERCLE-BACILLI IN SPUTA.—The following plan is followed in the pathological laboratory of PROF. RINDFLEISCH, in Würzburg. A portion of the sputum is pressed between two cover-glasses, which are then separated and dried in the air. A staining fluid is prepared according to Ehrlich's formula; the cover slip is then passed three times rapidly through the flame of a spirit-lamp, the sputa being on the upper side, and then floated in the staining fluid, which is contained in a watch glass, and the latter held over the flame until the fluid commences to vaporize. The cover-slip is then removed, washed in a stream of water, and laid in absolute alcohol which has been slightly acidulated with nitric acid, when the color will be removed in about ten seconds. The slip is then taken out of the alcohol, again washed in water, dried, and mounted in balsam.—*Wiener Med. Presse*, December 24, 1882.

JEQUIRITI IN THE TREATMENT OF GRANULATION OF THE CONJUNCTIVA.—At the meeting of the Société de Chirurgie held December 13th, M. TERRIER read a report on a memoir of M. José Cardosa, of Rio Janeiro, on the employment of this drug. The jequiriti is a leguminose plant; an infusion made of the seeds and employed as a lotion to the conjunctiva in cases of granulations, sets up an acute inflammation, and may, in large doses, even cause severe accidents. M. de Wecker has employed the preparation with satisfactory results, while in the only case in which M. Terrier employed it an intense purulent conjunctivitis was set up, which was cured without the granulations undergoing the least improvement. So while in certain cases it may be used with success, it should always be employed with caution. M. Desprès maintained that the only justifiable treatment of this disease was excision of the granulations when chronic, while, when inflammatory, they may be cured by cauterization with sulphate of zinc or nitrate of silver.—*Gaz. Méd. de Paris*, December 23, 1882

DISLOCATION OF THE LIVER.—At a recent meeting of the Society of German Physicians in Prague, PROF. PRIBRAM reported a case in which, on account of a pyopneumothorax of the right side, the diaphragm and liver were displaced downwards. The liver had entirely left its normal situation in the right hypochondrium, and was so twisted that, while the left lobe was only slightly displaced downwards, the remainder of the liver lay with its long axis vertical, and its normally inferior surface looking to the left. As a consequence of this dislocation, the transverse colon was bent on itself, and displaced downwards nearly as far as the symphyses. This condition had been recognized during life, and caused a certain amount of obstruction during life, particularly to the escape of blood from hemorrhage from a large tubercular ulcer in the duodenum.—*Wiener Med. Presse*, December 3, 1882.

TREATMENT OF HYDROCELE.—The following is the treatment of hydrocele employed by DR. CATTANEO in the hospitals at Pavia:

1. Puncture of the hydrocele with a capillary trocar of an aspirator, and evacuation of the fluid.
2. Injection of a solution of hydrate of chloral in quantity proportionate to the volume of the hydrocele and age of the patient: one to two grms. of chloral for children, four grams. for adults, and occasionally more in old men. The solution is made by dissolving equal parts of chloral in cold distilled water.
3. Cold applications to overcome the pain produced by the injection.
4. The injection is repeated if the absorption occurs too slowly.

The patients are kept in bed during this treatment and wear a suspensory bandage for some time afterwards. It is claimed by Dr. Lampagnani, who reports this treatment, that the effusion has not returned in any one of seventeen cases so operated on, nor have there been any complications in any case.—*Journ. de Méd. de Paris*, December 9, 1882.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, JANUARY 27, 1883.

NATIONAL PUBLIC HEALTH LEGISLATION.

DURING the present session of Congress but three bills have been introduced which have any special relation to sanitary matters. These are: 1, a bill introduced by Mr. Hardenbergh in the House, Dec. 19 (H. R. 7,085), "To prevent the importation of adulterated teas;" 2, a bill introduced in the Senate by Mr. Harris (S. 2,259), "To repeal the tenth section of the Act approved June second, eighteen hundred and seventy-nine," etc.; and, 3, a bill introduced in the Senate by Mr. Conger (S. 2,284), and in the House by Mr. Rich (H. R. 7,121), "To provide for the sanitary inspection of immigrants."

We shall probably have occasion to refer to Mr. Hardenbergh's bill hereafter, in speaking of adulteration of food and drugs legislation; at present we shall only consider the bills of Senators Harris and Conger. The bill of Senator Harris repeals the tenth section of the Quarantine Act of June 2, 1879, which reads as follows, "Sec. 10. This Act shall not continue in force for a longer period than four years from the date of its approval;" and also repeals the clause of the appropriation bill of last year which restricted the operations of the Board to cholera, yellow fever, and smallpox. It also provides that, of the unexpended balance remaining to the credit of appropriations made for the National Board of Health, $124,000 shall be available for the use of the Board during the next fiscal year, and that an additional sum of $100,000 from the unexpended balance of moneys to be used only in cases of epidemic shall in like manner be available for the same purpose during the coming year.

Senator Conger's bill provides for an appropriation of $25,000 "To enable the National Board of Health to coöperate with State and local boards of health, and local quarantines; and to continue during the remainder of the current fiscal year the sanitary inspection of immigrants, for the purpose of preventing the introduction of smallpox and other contagious diseases into the United States, and their spread from one State to another." It will be seen that this last bill simply provides funds to carry on the inspection work until the 30th of June, the appropriation made last year being insufficient for this purpose. So far as we can learn, there is little probability of the passage of either of these bills in a separate form by the present Congress, owing to the fact that this is the short session, and that there is a vast amount of legislation pending in which members of Congress are much more actively interested than they are in health matters. It is, however, possible, that the substance of one or both of these bills may be incorporated as a clause in the appropriation bill, although the hostility of the chairman and other members of the House committee of appropriations to the National Board is such, that any such clause must probably be put in as an amendment, in the face of their opposition.

Since the publication of the editorial on the National Board of Health in our issue for Nov. 11, 1882, page 546, we have received an unofficial letter from Dr. Hamilton, Surgeon-General of the Marine-Hospital Service, in which he expresses a general concurrence with our views as to the essential function of a national health organization, and incloses the following extract from a communication made by him to a member of the Public Health Committee of the House, dated March 6, 1882:

"It may be asked what there would be left for the board of health to do [after the loss of the national quarantine]? In answer, it is only necessary to point out the scores of questions yet undecided as to the causation and prevention of diseases and epidemics, as well as the consideration of the different problems connected with public and domestic hygiene about which a board of health might be reasonably supposed to concern itself. The dignity and usefulness of the Smithsonian Institution have never yet been impaired by the fact of its complete severance from executive work, and I am sure that the board of health would grow in popular favor and largely increase its usefulness by a slight change in its constitution, a more proper direction of its work, and its complete disconnection with executive work for which it has evidently neither adaptability nor facilities."

In his letter to this journal, Dr. Hamilton still further defines his position in the following words:

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"I have and shall continue to oppose the transfer of sick sailors to the National Board under the guise of a national quarantine, but I do not oppose the Board or its legitimate work. The work of this service is the health and hygienic interests of sailors and boatmen, but if we are to have a *national* quarantine at all, I claim that the Treasury Department, which not only has *medical* officers, but the customs officers and coast guard at its disposal as well, is the proper department. . . . Now it is more reasonable that the commercial interests shall be consulted in the disposition of this matter than that a few office-holding 'sanitarians' should disturb the ordinary channels of business for the sake of bestowing a few offices upon their favorites. Now if offices are to be created *de novo*, we do not concede that the National Board of Health has any better facilities for procuring them, or that their system of appointment affords any better guarantee that they shall be competent than the method now pursued by the other branches of the public medical service; on the contrary, while the Board does not examine its appointees, the Army, Navy, and Marine-Hospital Service require theirs to pass a rigid professional examination."

We have quoted thus fully from Dr. Hamilton, because we desire to have his views fully and fairly represented. It is much to be regretted that there is a certain degree of hostility existing between the Marine-Hospital Service and the National Board, and the more so since this hostility appears to us to be almost entirely groundless. We cannot understand, on the one hand, why the National Board should object to the transfer of all quarantine executive work to the Treasury Department, nor, on the other hand, how it can in any way interfere with the work of the Marine-Hospital Service to have the work of aiding State and local boards in quarantine work performed through the National Board, as at present.

Dr. Hamilton is rather unjust in his sneer at sanitarians and their motives, as we think he would admit upon reflection, but it must be remembered that his letter was written just after the meeting of the American Public Health Association, where some of the sanitarians were disposed to speak harshly of his services, and it will be observed that he disclaims all hostility to the Board itself. Since our last editorial on the National Board, Dr. Folsom and Mr. Phillips, the Solicitor-General, have withdrawn from it, and some criticism has been made of the remaining members, in that they have not also resigned, and have appealed to physicians and sanitarians to influence Congress in their behalf.

It seems to us, however, that the question as to propriety of resignation is purely a matter of individual view as to what is becoming and to the best interests of the Board under the circumstances; and there is plenty to be said on both sides. We can see no impropriety in their having appealed to physicians and sanitarians; there is, in fact, no other class to whom they can properly appeal for a competent judgment as to whether they have done well or ill. The question must be settled in some way very soon, for if Congress at its present session does nothing, the present Quarantine Act lapses on the second of June next, and the Board remains under the constituting act alone. Whether the lapsing of the present quarantine act revives the one which preceded and was annulled by it, and which put the matter in charge of the Marine-Hospital Service, is a legal question, not yet decided; but probably it does not.

As indicated in our previous editorial, this question of quarantine, and who is to act as almoner for the United States with regard to it, seem to us questions of secondary importance as compared with the question whether we are to have a National Health Commission, to carry out investigations into the etiology of disease, and furnish authoritative and reliable advice and information when they are required. It is probably impossible during the present session of Congress to obtain legislation which will put the National Board of Health upon a proper footing, but, at all events, an effort should be made to prevent its abolition, or the leaving it entirely without means or duties.

OSSEOUS AND ARTICULAR LESIONS IN LOCOMOTOR ATAXIA.

THE advantages which the wide experience of a large hospital afford in the study of disease are especially well seen in the accumulation of many cases of comparatively rare disorders, or of unusual results of the more common. Such cases gravitate naturally toward these centres. And when to the great hospital is added a man of uncommon force and acumen like Charcot, this centripetal force is still more marked. Many of us have seen isolated cases of fractures and other bony lesions in ataxia, but at la Salpêtrière Charcot has had them by the score, and his accumulated facts are so much the more valuable.

In a recent number of the *Archives de Neurologie*, FÉRÉ presents an elaborate description of the specimens from eight cases not previously related, collected by Charcot since 1876, besides others which have been given to the Musée Dupuytren, the Hunterian, St. Thomas' Hospital, the Manchester, and other museums. Eighteen excellent woodcuts illustrate the paper.

One of these patients furnished the first complete ataxic skeleton ever examined, and with the result not only of verifying numerous lesions of bones and

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joints recognized during life, but of discovering a fracture of the right ilium and left fibula, which had passed unperceived. For the first time also an arthropathy of the temporo-maxillary articulation has been observed *post-mortem*. In this series the hip-joint and the shoulder were chiefly affected, especially the first. The head of the femur and humerus had frequently disappeared, and in some cases the entire upper end was gone, leaving only a conical stump-like extremity, rough, porous, eroded, and corresponding to an equally diseased cotyloid cavity. Dislocation was not uncommon, and a striking full-length figure of a woman is given, in whom the end of the left humerus presented under the clavicle, and the upper end of the left tibia and fibula were dislocated backwards and upwards four inches above the condyles of the femur, stretching but not rupturing the crucial ligaments.

The now well-known frequency of fractures in ataxics finds several illustrations here. Some are re united firmly, others by fibrous union, and in one case the fragments of the ilium, though united on the internal surface by bony callus one centimetre thick and four wide, showed not the slightest trace of any effort at repair in the exterior. In another case the fractured head of the femur, instead of uniting with its shaft, had consolidated with the ilium in an acetabulum so eroded that the femoral head could be seen from the pelvis. Moreover, the head of the femur and the floor of the acetabulum projected as a bulging tumor into the pelvic cavity.

It is of not a little interest to observe that the very first hint of the spinal origin of these joint diseases was given by the late Prof. J. K. Mitchell, of this city, in the *American Journal of the Medical Sciences* so long ago as 1831 and 1833, and that his son, Dr. S. Weir Mitchell, in the same Journal, in 1873 and 1875, has made some of the late and, we regret to add, rare American additions to our stock of knowledge in reference to such articular and osseous lesions. To Charcot, however, more perhaps than to any other one author, do we owe our knowledge of the subject. He has insisted, as opposed to Volkmann and others, that the lesions are not traumatic but spinal in their origin and trophic in their character, and, again, that the joint disorders are totally distinct from those of ordinary dry arthritis.

Certainly specimens and cases, such as these and others which he has described in his *Leçons*, seem to prove both of his points to be well taken. The period at which the troubles occur, long before the incoördination of the later disease; the absence of prodromata; the malignancy of the disease, as evidenced by the rapid and complete erosion and even disappearance of the whole upper end of so large and stout a bone as the femur, with other almost as striking characteristics, are *primâ facie* evidence of the correctness of his view. Moreover, the peculiar articular lesions following injuries to the peripheral nerves, as well as of the cord, first pointed out by Weir Mitchell and his colleagues during the late civil war, and now well recognized as clinical facts, are very strong evidences in favor of the neurotic origin of such osseous and articular lesions, even though of so extraordinary a character.

THE TREATMENT OF TYPHOID FEVER.

IN a recent discussion before the *Académie de Médecine*, DR. DUJARDIN-BEAUMETZ passed in review some of the methods now most employed in the treatment of typhoid. These methods may be referred to two categories: the antipyretic; the antiseptic. The antipyretic consists chiefly in cold baths and massive doses of quinine. The bath treatment is not without danger in the way of causing congestion of the lungs, and the use of quinine in the large doses now employed would produce toxic effects if it were absorbed, but the greater part of it may be recovered from the stools. Salicylic acid causes stomach trouble: and if well borne does not modify in any way the severity of the disease, or lessen its duration. Carbolic acid is a dangerous medicine, which may induce collapse or set up pulmonary congestion. In the estimate made of any plan of treatment, the type of the epidemic must be taken into account.

Rejecting thus in turn the various novelties of treatment, Dr. Dujardin-Beaumetz maintains the superiority of that which he styles "the classical." It consists in the occasional administration of purgatives, a proper alimentation, careful attention to the hygiene of the patient, and the use of means to combat unfavorable symptoms as they arise. In other words, except the use of purgatives, his method is that entitled "expectant" in this country.

STRAW IN THE STREET CARS.

NOTWITHSTANDING the comparatively recent introduction of street passenger cars, there remain certain usages connected with their service which are relics of the barbarous past, and which are totally void of excuse. Notable among these barbarisms is the condition in which our horse-cars are kept during the winter months.

While cars transported by steam are models of comfort, and even luxury, the comfort and health of those multitudes who are compelled to use the street-cars of our large cities are treated with absolute contempt. Nay, there would seem to be a reckless disregard of the comfort and health of those who patronize these vehicles.

Let any one fresh from reading a description of Koch's investigations on the "bacillus tuberculo-

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sis," enter a street car on a wet, muddy, winter afternoon. Let him glance at the damp, soggy, straw or hay which covers the floor, and notice the frequent expectoration in the material thus carefully provided for the cultivation of germs, and we defy him to avoid the ardent hope that Koch is in error, and his bacillus imaginary. No wonder that so many prefer to take their chances of pneumonia and pickpockets upon the rear platform.

Should the day be cold, and the door and windows be carefully closed in consequence, the street-car traveller may reflect upon the scars adorning his neighbor's face, and amuse himself by estimating how many as yet undetached variolous crusts still adhere to his person, or he may pursue his reflections so far as to speculate how many may become detached and find a resting-place in the luxurious hay carpeting at his feet.

We need not follow the investigator into his speculations concerning the whole list of contagious diseases. Of one thing we may rest assured, that he will arrive at the conclusion that the ingenuity of man has not devised any one thing better fitted to both concentrate and disseminate morbific poisons than the average horse-car in winter. Such a state of things is a disgrace to our civilization, and results from an utter absence of progressive spirit on the part of the managers of these corporations. It comes from simply allowing things to remain as they were in the beginning. In this case there is every reason why they should not so continue, and there is no excuse for street cars not being both properly warmed and ventilated, since numerous efficient devices to this end are in the market.

The enormous power wielded by street railroads makes it difficult to deal with the matter by municipal legislation. Nevertheless, the evil is a great one, and is worthy of most careful consideration by all who are interested in the health of the public.

THE QUALIFICATIONS OF A HEALTH OFFICER.

THE rapid advance in sanitary knowledge, and, as a consequence, the more exacting demand for a careful and wise administration of sanitary law, requires a rigid scrutiny into the qualifications of all executive officers of health. So varied and responsible are the duties entrusted to the health officer of a large town or city that, without special knowledge and training, and good administrative ability, the holder of the position cannot successfully discharge the obligations of the trust. Recognizing the soundness and wisdom of this principle, the local government of England has long since required that all health officers shall be medical men, who, by education and training, are especially fitted for the work of investigating the causes and prevention of diseases, the management of epidemics, supervision of sanitary inspections, and the intelligent administration of the laws of health.

It happens too often in this country that the position of health officer is one of political reward, without consideration of personal and professional qualification. The result is an inefficient, haphazard, and automatic execution of the laws, and a failure to judiciously and efficiently carry out the duties of the office, through ignorance of the fundamental principles of public and private hygiene.

A health officer should be an experienced sanitarian, and a physician of thorough education. He should be capable of advising the sanitary authorities in all matters affecting the health of the people, and he should be competent to intelligently inquire into the causes, origin, and distribution of diseases, to ascertain to what extent they are capable of removal or mitigation, and to make use of all the means at his disposal for the preservation of the public health. He should give his entire services to the position; he should receive a liberal compensation, and should have the assurance of continuance in office so long as the duties of it were judiciously and efficiently discharged. The present uncertain tenure of office is a bar to an eligible appointment, as none but a professional office-seeker is willing to throw aside the advantages of a permanent avocation for an office of uncertain tenure.

The recent selection of a health officer for Philadelphia ignores the fact which we have endeavored to set forth that special knowledge and training are preëminently the qualifications required for such an important office.

LEITER, the well-known instrument maker of Vienna, has introduced an apparatus for the local application of heat or cold. It consists of a flexible metal tube, which may be made to adapt itself to any surface. Thus, if it is desired to apply a given temperature to the abdomen, the tube is coiled on itself until it has the proper size, and moulded to fit the surface. The entrance tube is connected with a vessel containing water at the desired temperature, and the exit tube empties into any suitable receptacle. The principle is by no means new, but the adaptation of flexible metallic tubes which can be moulded to any unequal surface, is the point of novelty. At Billroth's clinic these tubes have been employed by Dr. Mikulicz in joint inflammations, in phlegmon, in traumatic delirium, in erysipelas, in rapidly growing sarcomata, and in neuralgia. Sometimes heat, sometimes cold, is found to be more effective. They are applied with equal facility, of course. The ordinary rule for their application is equally operative in the use of these tubes—the sensations of the patient being the true guide to the degree of heat or cold respectively.

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SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, January 18, 1883.

THE VICE-PRESIDENT, ROBERT F. WEIR, M.D., IN THE CHAIR.

THE SECRETARY read a letter from Dr. Charles Mill, in which he presented an elaborate engraving of John Hunter to the Academy. Enclosed was a printed slip, taken from *Harper's Magazine*, descriptive of the engraving. The engraving was the work of Mr. William Shaw, a celebrated engraver of the last century.

DR. ADAMS said that the original portrait, from which this engraving was made, was in St. George's Hospital. He moved that the thanks of the Academy be extended to the donor for his generous gift.

The first paper of the evening was by Dr. PAUL F. MUNDÉ, and was entitled,

SECONDARY PUERPERAL HEMORRHAGE.

While the occurrence of more or less alarming uterine hemorrhage immediately after or during the first twelve hours following delivery is by no means uncommon, and has been thoroughly discussed in all the text-books and in the current medical press, the subject of metrorrhagia at a later period of the puerperal state, so-called "secondary hemorrhage," has received comparatively little attention.

The author reported the case of a woman twenty-five years of age, whom he had seen in consultation in her fourth labor, which was very tedious, and after it had lasted for twenty-one hours, the forceps were applied, but slipped. After a short time delivery was effected by perforating the cranium and applying the cephalotribe. The cause of the difficult labor was hydrocephalus. On the sixteenth day she was taken with profuse hemorrhage, which soon threatened her life, but from which, by appropriate treatment, she ultimately recovered.

The subject of secondary hemorrhage occurring at a late date was then considered, and the paper concluded with the following brief rules for the management of the third stage of labor, and the early puerperal state:

1. Always keep the supporting and compressing hand on the fundus uteri from the moment the head appears at the vulva until the placenta is expelled.

2. Do not hasten the expulsion of the placenta too much, but by steady, gentle friction of the fundus endeavor to obtain its total spontaneous detachment, the occurrence of which can easily be detected by the uniform firm outline of the contracted uterus on palpation.

3. Always watch the uterus with the hand, using gentle friction for at least an hour, at intervals, before leaving the patient.

4. Always give ergot (one drachm or more of the fl. extr.) by the mouth, immediately after the birth of the child. If chloroform has been given for an operation, or if the labor has been unusually tedious, give the ergot hypodermically, injecting a syringeful of the fl. extract to the depth of one inch, near the umbilicus. It is always advisable to have the syringe filled with ergot, and to see that it is in good working order, before the conclusion of the labor.

5. Always have ice on hand; and if the uterus shows a reluctance to remain contracted, rub the fundus gently with a piece of ice, or insert a cone-shaped piece into the cavity. (As a rule, the injection of *hot* water, while a powerful styptic, is less agreeable to the patient at this time, and will scarcely be employed unless actual hemorrhage occurs.)

6. Always make sure by palpation and compression that the uterus contains no coagula, and if such still form at once express them.

7. Aid in securing permanent contraction of the uterus by an early application of the child to the breasts.

8. If the labor has been tedious or instrumental, or the uterus contracts badly, or the patient is not to nurse the child, or is constitutionally feeble, it is wise to guard against sub-involution and a long continuance of the bloody lochia, by giving the patient a pill containing one or two grains of Squibb's aqueous extr. of ergot, two grains of quinine, and one-third of a grain of extract of nux vomica, three times a day, for ten days or two weeks, or longer, beginning on the day after delivery. If the stomach is irritable, this combination may be given in rectal suppositories, the quantity of ergot being doubled.

9. Before leaving the patient, an equably tight binder should be applied, and if there be tendency to hemorrhage, a pad should be placed under the binder over the fundus, to secure its steady compression.

10. Examine the cervix and vagina with the finger immediately after delivery, and if there be a laceration of either, be prepared to check possible future oozing by mild astringent injections, or, if need be, applications through the speculum. (Immediate suture, as recommended by some, appears to be rarely feasible.)

11. Do not allow a lying-in woman to make rapid motions in bed, strain, sit up suddenly or very long, or to leave her bed before the tenth day.

12. Keep watch of the bladder, particularly during the first twenty-four hours, and assure yourself by palpation and percussion that it is empty and is not interfering with uterine contraction.

13. Instruct the nurse not to insert the nozzle of the syringe too far, or to use too much force in giving the customary cleansing injections, for fear that the cervix may be bruised.

DR. POLK thought that the causes of secondary uterine hemorrhage were not dissimilar to those of hemorrhage occurring elsewhere. Hence, it has been his rule, when he had found slight hemorrhage, to be on his guard against those conditions which were generally supposed to predispose to hemorrhage. If uterine contraction takes place in the first instance and coagula are formed and are permanent, there will be no hemorrhage; but if, in consequence of disease, lymph is not exuded, and the vessels do not contract properly, and the proper organization of the tissue does not take place, the clot is absorbed and the mouths of the vessels remain open. Now, the conditions which will interfere with the proper closure of the vessels are very numerous. Among these should be mentioned, first, those included under the term of pueperal fever. These prevented the contraction of the uterus, and at the end of four or five days we would find the fundus of the uterus in the neighborhood of the umbilicus. The other conditions are mainly constitutional, and may be summed up under the head of any of the cachectic states, such as malarial, or those conditions due to the poisonous effects of minerals, such as lead or mercury, or any substances that might interfere with the plasticity of the blood. He believed there was a large number of conditions, any one of which might give rise to hemorrhage, provided we have a certain amount of interference with the organ itself, such as washing it out, premature intercourse, retention of urine, etc. He was sure that he had seen a good deal of prostration in consequence of the prolonged use of cold in this condition, and also that he had never seen any ill effects from the use of hot water, which should be as warm as the hand could readily bear.

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DR. PARTRIDGE agreed with Dr. Polk as to the causes of secondary hemorrhage, and if he were asked to point out a woman who would be likely to suffer from secondary hemorrhage, he would select one with flabby muscles, irregular cardiac action, and such symptoms as were attributable to defects in the circulatory system; also, those suffering from derangement of the sympathetic system. He once had an alarming case of secondary hemorrhage occurring on the ninth day after labor. When he reached the patient, she presented symptoms of extreme loss of blood, her face was pallid and she was in a state of syncope. The uterus and vagina were filled with clots, and the bed-clothes were saturated with blood. Upon examination, it was found that there was an annular slough of the vaginal end of the cervix, from which a profuse hemorrhage had occurred. In this case there was an early rupture of the membranes, owing to the frequent pains and great pressure of the head. In studying this subject, he had found that in cases where there was resistance to the downward coming of the head, there was more tendency to uterine hemorrhage.

With reference to treatment, he thought there was very little more to be said; when such a condition of the general system as he had pointed out could be recognized, he thought it was of importance to watch the patient with exceeding care. In regard to local treatment, if the hemorrhage depended upon laceration, he would say use iodine applied to the bleeding surface with cotton. Septic absorption was not common before the tenth day, but it sometimes occurred earlier. In most cases of laceration the separation of the slough occurred on the seventh day, but in those cases where the laceration was of very considerable extent, the separation of the slough did not take place so soon. In such cases, the use of the tampon was particularly to be avoided. He could not use the tampon unless other methods had proved useless. He concurred in the opinion as to the non-desirability of sewing up the cervix at such time.

DR. HANKS remembered a patient coming under his observation who suffered from excessive uterine hemorrhage occurring fourteen days after confinement. In this case, the cause of the hemorrhage was undoubtedly due to malarial poisoning. Though the patient was thoroughly exsanguinated, yet after washing out the cavity of the uterus with warm carbolized water, she finally rallied. He had had another case undoubtedly due to malarial poisoning, which came on nine days after confinement. In this instance the hemorrhage was controlled by intra-uterine injections of hot water. He did not usually make use of the tampon, and would not recommend it on account of the difficulty of applying it under such circumstances. He thought that the application of iodine could generally be relied upon to arrest the hemorrhage. He begged to differ from the author in the use of ergot in all cases after labor. He did not think this practice was necessary. What was necessary, however, was to watch the patient carefully, and if there were any signs of danger, then to use ergot.

DR. MUNDÉ preferred the introduction of a conical piece of ice into the cavity of the uterus to the injection of hot water, as he thought it would be as efficacious as the latter, and more agreeable to the patient. The subject of chronic lochial discharge, or, as it has been termed, *hemorrhagica lochialis*, he thought was of sufficient importance to demand separate consideration. These cases of profuse lochial discharge might continue for months. They were due to want of uterine contraction, and to the formation of healthy mucous membrane. As to the use of the tampon, he would not recommend its introduction into the vagina after the delivery of a full-grown child. In the use of ergot he saw no evil effects beyond the slight nausea, and he thought it was a safe practice to use it in all cases. He would, however, consider its use hypodermically as unnecessary, except where it was especially called for to arrest hemorrhage.

The next paper was by DR. EDWARD B. BRONSON, and was entitled

ECZEMA, ITS PATHOLOGY AND PRINCIPLES OF TREATMENT.

The author referred to the importance that is generally attached to the changes that take place in the vascular layer of the skin, in eczema. The part played by the epidermis in this disease was commonly regarded as secondary and subordinate. He maintained that the epidermic lesions were rather of a primary and initiative character, and considered the epidermis to be the focal point of the eczematous process. The researches of Velpeau and others had shown that the cells of the rete Malpighii took an independent part in the disease that was analogous to that of the endogenous formations that characterize inflammation of other non-vascular structures, such as cartilage tissue, the cornea or the epithelium of the epiploa. The formative changes that took place in these structures when inflamed, originated in the normal, endogenous cells of the part and not in cells that had wandered from the bloodvessels. But though the pathological process was initiated in the cells of these structures, the adjacent vascular tissue soon sympathized. The papillary vessels responded to an irritation in the epidermis, as did the subconjunctival vessels in irritation of the cornea.

Next the qualifications of the epidermis for initiating an irritative process in the skin were considered, and in this connection, reference was made to recent researches concerning the cutaneous nerves—more especially the nerves of the epidermis. Of these researches, the most important were those of Pfitzner and Unna. These investigators had shown that each prickle cell in the rete mucosum was provided with two nervous filaments which penetrated the cell wall and terminated within the cell by bulbous extremities. It was urged that this extraordinary nervous supply to the epidermis could not but have an important bearing upon the pathology of eczema.

The most constant and essential factors in eczema were sensory disturbance and trophic change in the epidermis. The trophic changes that took place in the derma were regarded as secondary and contingent. Impairment of the integrity of the epidermis was the necessary condition of every form and phase of eczema. It, more than any other feature of the disease, distinguished it from the erythematous diseases. The desquamation that occasionally occurred in the latter was the result simply of nutritive impairment due to vascular disturbance beneath, but in no wise corresponds to the degenerative lesions of the epidermis in eczema. It was probable that this trophic change of the epidermis in eczema was under the influence of the epidermic nerves.

Furthermore, it was claimed that the sensory disturbance so characteristic of the disease, viz., the itching, was owing to disorder of these nerves. Evidence was adduced to show that the diseases of the skin which are attended with pruritus always implicate, in a marked degree, the mucous layer. In urticaria, the lichens, prurigo, scabies, and vesicular diseases in which the vesicle was deep seated, sensory disorder was an important feature, and in all of them the mucous layer was markedly involved.

No great importance was attached to the different lesions of the nerves that have been described as associated with eczema. They simply served to show the intimate relation of the disease to the nervous

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system. The initial motive of the morbid process—exciting cause—might be developed from various sources: direct external irritation of the epidermis, reflex irritations, central nervous derangement, or diseases of the nerves, either in their continuity or at their periphery.

Eczema, then, was a disease the main factors of which were a cutaneous inflammation of a catarrhal character, seated primarily in the mucous layer of the epidermis, involving the derma incidentally to a greater or less extent, and accompanied with marked disorder of the tactile sense.

Ordinarily there is but little tendency to spontaneous recovery.

The obvious therapeutic indications are, first, to allay irritation, and second to assist repair.

The first requires the elimination, as far as possible, of all sources of irritation, whether extraneous or inherent, together with the protection of the damaged epidermis. The second indicates the use of such stimulants as will combat the tendency to chronicity. Measures of rest and measures of stimulation constitute the whole treatment of eczema. Two methods are possible—mediate and immediate—the first by internal, the second by external medication. The accessibility of the suffering tissue in eczema would naturally suggest the method of direct application, which was first considered.

The agents used in the local treatment of eczema are either mechanical, chemical, or dynamic in their action. Mechanical agents are chiefly valuable for protection, answering the same purpose as the simple dressing in the treatment of a wound. They include various inert powders, lotions, simple ointments, and emollient applications generally. The indications for the different varieties of this class are not precisely identical. As a rule the highest grade of inflammation, as in the acute erythematous form, is best treated by wet applications. These abstract local heat by evaporation, and prevent local desiccation of the superficial epidermis—a harsh, dry condition that tends to increase the irritability of the subjacent nerves. The lotion may either hold in suspension powdery substances that collect upon the epidermis and supply a soothing envelope, or it may contain chemical materials that exert a slight modifying influence, such as mild astringents or alkalies. Lotions, however, if employed, should be used continuously. Alternate wetting and drying of the inflamed skin increases the irritation. A small quantity of glycerine generally improves the wash. Undiluted glycerine is an irritant. Emulsions, also, are well suited to this stage of the disease. When the inflammation is less intense (acute papular eczema), the insoluble powders are the best application. Between lycopodium, starch powder, talc, calamine, oxide of zinc, bismuth, and the like, there is little to choose, if only the applications be copious and frequent. The effect is increased by first smearing the skin lightly with cold cream, glycerine and water, or some soothing emulsion, thereby affording a surface to which the powder will better adhere. A little later comes the period for the use of ointments. The skin has become rougher and harsher, the cuticle brittle and ragged, the surface covered with scales, crusts, and abrasions. Vesicles appear here and there, or, more commonly, minute punctate excoriations. From this time forth the cure is usually hastened by the continuous protection of an appropriate ointment, until the epidermis is sufficiently regenerated to perform its protective functions unaided. Such an ointment should be absolutely non-irritating, smooth, homogeneous, and free from rancidity. It should not be so greasy as to be easily displaced; it should not soften the cuticle so much as to render it more vulnerable; but should be of a proper consistency to afford a perfect shelter to the exposed and irritable structures, and at the same time prevent undue desiccation. It is difficult to find any application that better meets all these requirements than our common zinc ointments. Rarely is any other preferable. Under its protection and control, stimulation may be produced by certain measures, intermittently, or, if desired, more constantly, by modifying the ointment by the addition of various medicaments.

But eczema has certain phases to which ointments are not suited. As already indicated, they should not be begun at a very acute stage of the disease. Furthermore, where the surface is eroded and exudes a copious and ichorous discharge, the effect of all ointment is generally unfavorable. An astringent wash or, better, an absorbent powder is preferable. Gypsum, if free from gritty particles, added in the proportion of one to four or one to eight, increases the absorbent power of the powder.

A class of agents, the action of which is far more complex and obscure, is the group that acts as modifiers of vital action. By far the most important of these are the alkalies. Their value in almost every stage of the disease has long been established. In fact, inflammations of cutaneous and mucous surfaces, almost without exception, are beneficially affected by their use. Their sedative influence is an important element in their action. No more certain anti-pruritic exists, and no remedy affords greater relief for the heat and burning of an inflamed skin than external alkaline applications. The virtues of the alkaline bath are rather under than over-estimated. Although medicinal agents are probably unable to penetrate the intact cuticle, yet when applied over an extensive surface they gain sufficient access to produce decided effects. Employed over a small surface the alkaline effect is very marked when the corneous layer is abraded and the nervous structure of the epidermis exposed. Dilute alkaline washes answer well for the acute stage of eczema. Later, when pathological products, difficult to dislodge, accumulate on the surface, alkaline soaps are preferable. In old chronic cases with decided thickening and thick laminæ of adherent scales, the stronger potash soaps are indicated, as the "Schmierseife" of the Germans, or, better, the "Sapo Olivæ Præparatus" first brought into notice by Dr. G. H. Fox. When the scales and crusts are thinner, the milder soda soaps should be used, preferably those made with glycerine and a small proportion of alkali. Lang's, Rieger's, or Pears' soaps are the best.

In squamous eczema, the "soap treatment," which we owe to Hebra, if thorough, has no equal, and the relief is almost immediate. The frictions themselves would cause useless irritation did they not remove the source of greater disturbance. In squamous eczema there are almost always vesicles deep down in the rete, imprisoned by desiccated epidermis or dried secretion above. The epidermic nerves are intensely irritable. The soap clears away the irritating pathological products, evacuates ichorous fluid formed in the vesicles, and brings the liberated alkali into direct contact with the diseased tissues, thereby modifying the pathological processes, and exerting a direct sedative influence upon the adjacent nerves. Moreover, the stimulating effect doubtless promotes absorption and assists reparative effort. Seldom is any stronger alkali than that contained in soap required. For simple caustic effect, agents that act more superficially are preferable, as carbolic acid or nitrate of silver. The latter, or its solution, is generally most useful in circumscribed forms of moist eczema, in which there is a pyogenic condition. Hot water is of value to allay the pruritus of eczema. It accomplishes this by first substituting the sense of smarting for the itching, and

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later by its direct sedative action. The hot water should not be stopped too soon, if the full benefit of its use would be derived. Violent scratching temporarily relieves the itching, the "paræsthesia" of pain prevailing over and excluding the paræsthesia of pruritus. Carbolic acid is a very useful remedy in eczema; when strong, it annihilates vital action; moderately concentrated (from ¼ to ⅛), it allays local excitement and produces sedation; dilute, it acts similarly to the tarry remedies. Irritable fissures are benefited by strong applications. Moderately strong solutions have decided anti-pruritic virtues. They are especially adapted to cases in which the area involved is small and the itching intense, as in eczema of the anus. Dilute solutions are useful in those cases benefited by tar and its congeners. Tar in cutaneous affections probably acts as do terebinthinate and balsamic substances in diseases of the mucous membrane. They are generally most useful after the acute stage has passed, when the nerves have lost some of their preternatural irritability, and the condition is one of impaired energy, of relaxation, and of congestion, more or less passive in character. They improve vascular tension, and check excessive secretion. They should be employed at a comparatively later period in eczema than the corresponding remedies in inflammation of the mucous membrane; perhaps because in the latter case, when the drug reaches the seat of trouble, it has become less irritating by dilution or modification of its ingredients. It is a good rule in eczema, that during the stage of active exudation in the mucous layer, tar is contra-indicated.

Little need be said of narcotics. Certain of them, however (notably camphor), because of their volatility are useful adjuvants in case there be pruritus.

Mercurials, though sometimes beneficial early, are chiefly of value in the latest stage, when acute inflammation has subsided, but when nutrition is interfered with by the products of inflammation accumulated mostly in the cutis and subcutaneous tissues. Mercury is especially useful in removing such products, fibrous or cellular, because of its hostility to living organisms. It attacks first recently formed and imperfectly formed tissues, impairing their vitality and predisposing them to rapid subinvolution and resorption. Besides this—its peculiar, its pathognomonic action—it has also a stimulant and substitutive effect.

The "impermeable dressings," more especially the rubber applications, are decidedly advantageous in advanced eczema with marked thickening. They macerate desiccated and thickened cuticle, the removal of which enables the deep vesicles to discharge. They also cause a substitutive inflammation, which, by countervailing the chronic eczematous process, assists repair. When the artificial inflammation becomes severe the dressing must be removed.

Though the agents enumerated embrace a wide range in therapeutics—emollients, sedatives, astringents, irritants, excitants, and alteratives—they are divisible into two classes corresponding to the two main indications for the treatment of the disease. To one class belongs the function of protection: to the other that of aiding and directing reparative effort. Early, before the morbid habit is confirmed and the natural reparative power seriously impaired, protective measures alone may suffice. Furthermore, they are indicated during the later stages, to prepare the way for stimulant or modifying agents, and to control their action. It is upon the proper apportionment of these two opposed, but virtually coöperating, therapeutic measures that success in the treatment of eczema will mainly depend.

The indications supposed to call for internal medication may be divided into four sets: (1) For the relief of internal disorders that affect the skin by reflex irritation. (2) To remedy general debility or special systemic diseases that are accompanied by defective innervation or innutrition of the skin. (3) To reinforce the local resources of repair by the administration of drugs that either act directly on the skin by selective affinity; or, else (4), To set up internally a transpositive irritation to divert a share of the cutaneous excitement to other organs.

Sometimes eczema appears to be due to internal causes, because of the absence of any unusual source of external irritation. Oftener it results from the combined effect of an irritation acting from within, and another acting from without. Reflex irritation, such as disturbance of the digestive or generative functions, rarely suffices alone to cause the disease; but when it is prolonged, the cutaneous nerves become so irritable and debilitated that they can no longer tolerate such external influences as, under ordinary circumstances, would be insignificant. Moreover, in systemic diseases attended with a general debility, gout, rheumatism, lithæmia, uræmia, diabetes, and the like—the nutrition of the skin suffers in common with that of other tissues, and these develop a predisposition to disease. Still further, back of the predisposition arising from conditions that affect the general health, it is necessary to infer the existence of a special cause that determines the cutaneous outbreak in that limited class of individuals known as the eczematous. The French school of dermatologists attribute this special cutaneous susceptibility to a special dyscrasia. Eczema is the expression of a systemic malady which at certain periods and under various influences becomes intensified, betraying itself by the appearance of the characteristic lesions of the skin. Of this peculiar diathesis, "*les dartres*" constitute the sole manifestation and evidence.

But is this the only possible explanation? Is no consideration due the inherent nature of the skin affected, its peculiarities of organization, the measure of its tolerance of irritating influences? Why should not the skin in different individuals differ as widely in its constitution and morbid tendency as do their other organs, their nervous, digestive, pulmonary or muscular systems? Some weaknesses arise from defects of anatomical structure; in others, defect of organization is less patent, but is betrayed by frequent derangement of function and proneness to disease. Thus in the eczematous subject, though his general health is not necessarily impaired, at every departure from health the skin is quick to take offence. Whatever may have been the original internal or external exciting cause the cutaneous effect is often a wholly disproportionate one, one that could only be produced upon an organ capable of but feeble resistance. The eczematous usually, but not always, have dry, harsh, irritable, itching skins; moreover they differ in degree of vulnerability and in disposition to recover from the outbreaks.

The external manifestations are constant because eczema is the natural expression of a simple inflammatory action of the mucous layer of the epidermis. When an irritation can no longer be tolerated by this tissue, its vital ty succumbs, and the legitimate outcome is eczema. Its physiognomy is not always the same, and it is possible that there may be allotropic forms depending on individual peculiarities. These may so differ from the simple type as to present the features of a different disease.

Therefore, whatever causes in the economy at large may predispose to eczema, the most essential predisposition is in the skin itself. Eczema, then, is essentially a local disease, and the most rational treatment is that which addresses itself most directly to the offending part. Oblique methods, however, are of value, and should not be ignored. At the outset, and

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in obstinate cases generally, powerful internal diversion will often so allay the cutaneous excitement as to determine the success of the local treatment. Tonics, regimen, diuretics, purgatives, alkalies, in discreet hands are invaluable adjuvants. Internal medication must always be subordinate. There is no "specific" for eczema. It will not do to depend on the "selective affinity" of internal agents for the tissues affected in the disease. Narcotics should be mentioned, but to be condemned. Manifest derangements of special organs or of the general system should be appropriately treated. In chronic eczema the original cause has usually long ceased to be operative. In the majority of cases local treatment is well able to cope with the disease single-handed.

DR. TAYLOR remarked that we have cases where the whole skin is involved, and in some cases the subcutaneous tissue beneath it, so that if the author would include this in his description of the pathology, he thought it would make his paper more complete, though he conceded its excellence in its present form. The principles of treatment, Dr. Taylor believed, could be formulated somewhat as follows: In the first or erythematous stages of the disease, soothing applications in the form of powders, starch, oxide of zinc, arsenic, calomel, with the addition of camphor as a slight stimulant, or a lotion, as lead and opium wash; later in the disease stimulants should be resorted to. He thought that the proper use of stimulation was one of the cardinal points in the treatment of this affection. Protective agents should first be used, and then stimulants. He agreed with all the author had said with regard to the use of soaps. In many cases he thought that we could go a step further, and even make use of strong solutions of potash. Soaps would sometimes fail where potash in strong solutions (say a drachm of caustic potash to an ounce of water) would succeed. The production of additional inflammation should be avoided. He was glad to hear the author take the ground that he did in regard to the nature of eczema. He believed that, whatever the general condition of the patient was, the disease itself was a local trouble. There was one point which he thought was not well brought out, and that was that patients not infrequently apply for treatment with eczema who have had it for a long time. In these cases, if we go back into their history, we find that in early life the patient had suffered from repeated attacks of local eczema. In this way the tissues had been rendered more vulnerable all through life than they otherwise would have been. He thought it could be stated that, as a rule, the more frequent the attacks in early life, the more liable the patient was to late attacks. In regard to the use of internal remedies, he agreed with the author as to the desirability of administering alkalies. He thought that one remedy had been neglected by the author of the paper, and that was arsenic. Arsenic would assist the internal treatment very much. The golden rule in handling cases of eczema was to look after the local treatment. Arsenic had a good effect upon the skin. If he were to indulge in a theory as to its action, he would say that it stimulates the capillaries, giving them tonicity, thus enabling them to hold their own.

DR. BULKLEY thought that the subject of alterations in the cellular layer of the skin was an exceedingly important one, and of late years had received insufficient attention. He had been much interested in noting the effects of tobacco in this disease. His attention had been called to a case of eczema of the anus by Dr. Frank H. Hamilton, in which the patient had a recurrence of the disease each time he used tobacco. He had watched the influence of this practice upon this class of cases in a number of instances. One case had come under his notice where an attack was brought on by smoking a single cigar. These facts, he thought, had a bearing in the direction of the nervous origin of eczema. Dr. Bulkley thought that in the majority of instances it would be found that patients suffering with eczema were not otherwise perfectly healthy. He had great confidence in the use of the tonic treatment combined with alkalies. It has been said that there is no specific for eczema, and he himself had made such a statement. He had, however, reported several cases of the disease recurring in children where the use of arsenic internally, without any local treatment whatever, had resulted in a rapid cure.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, December 28, 1882.

THE PRESIDENT, JAMES TYSON, M.D., IN THE CHAIR.

TUBERCULOSIS OF SPLEEN, LIVER, AND KIDNEYS.

DR. SHAKESPEARE exhibited these specimens without a history of the case. They showed exuberant vegetations in pericarditis, abundant miliary tubercles of the pleura, of the liver, of the spleen, of the kidneys, and of the lymph glands in the region of the head of the pancreas. They were brought to the notice of the Society mainly because the members had not had many opportunities of examining such perfect examples of extensive and diffuse tuberculous infiltration without more serious involvement of the parenchyma of the lungs.

Autopsy (six hours after death).—C. J., colored, æt. 60. Diagnosis: Pericarditis and pleuritic effusion, with strong bands of adhesions between parietal and visceral pleura. Thorax: left pleural cavity completely obliterated by adhesions; right pleural cavity contained a large amount of straw-colored serum. The lobes of this lung were compressed against the spinal column, and were stalactitic. The lower lobe was firmly adherent to the diaphragm, and the three lobes were strongly united by adhesions. The parietal pleura was thickened and everywhere studded with minute, gray, semi-opaque miliary tubercles; the visceral pleura was in a similar condition, except that the tubercles were less numerous. The cut surface of the right lung presented nothing abnormal, save absence of air, but the sense of touch showed beneath and near the pleura a few scattered minute points, much smaller than millet seeds. The pleura of the left lung was also studded with numerous miliary tubercles, and the tissue of this lung was similar to that of the right; it was, however, crepitant. The pericardial sac contained 2½ ounces of straw-colored serum. The whole heart was covered with an exuberant crop of vegetations. The cardiac walls were perhaps slightly softer than usual, otherwise normal. Abdomen, peritoneum, normal; no effusion; liver slightly enlarged, with surface here and there raised by flat elevations ranging in size from a hempseed to that of a hazelnut; capsule normal. The nodules were firm and of a yellowish tint; the intervening tissue was of a dark red. Deep section of the organ revealed similar nodules diffused through its substance, which seemed otherwise firm and normal. The spleen was slightly enlarged, firm, and extensively infiltrated with tubercles. The pancreas was normal, but the lymph glands near it were much enlarged, but neither softened nor caseous; no caseous focus was anywhere detected. The kidneys appeared normal, except for one or two more or less pyramidal yellow points. The case presents several points of interest: 1. Former history unknown. 2. Several aspirations, removing considerable pleuritic fluid. 3. What was the origin of the numerous tubercular irruptions, and if there was

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auto-infection, what was its probable source? Dr. Tyson then gave a *résumé* of the ante-mortem history.

DR. TYSON said he regretted having to admit that he was less familiar with the history of the case than he should have been, since the patient was in his own wards in the Philadelphia Hospital. Thoracentesis had been performed more than once. The patient was a colored sailor, aged 60 years. When Dr. Tyson took charge of the ward in September, the man presented the physical signs of double pleuritic effusion, orthopnœa, and feebly transmitted heart sounds, but no cardiac murmur. There was œdema of the legs. He was tapped with great benefit, and under a restorative treatment he rapidly improved, so that he soon became one of the walking cases in the ward, attracting little attention. About December 1, he became very much worse. The orthopnœa and other signs of accumulating fluid returned, and so did the œdema of the legs. His urine was repeatedly examined for albumen, with negative results. He was tapped upon the right side and three pints of fluid removed with but partial relief. The other side was also aspirated without success. A cardiac friction sound was noted, which seemed to be pleuro-pericardial, but in the light of the autopsy it was probably pericardial. He died on the 13th of December. He was unacquainted with the temperature record.

DR. MUSSER said that a relationship between pleurisy and pulmonary tuberculosis could not be denied, but whether the pleurisy or the tuberculosis be antecedent, was difficult of solution. That the former is primary may be inferred from the fact that persons are considered as threatened with phthisis who have subclavian arterial murmurs, due to the pressure or pulling on the artery of organized lymph. Likewise are the various friction sounds and exocardial murmurs noted to precede tuberculosis, and especially to occur in those tuberculously predisposed. Examples of both cases have come under his observation. It seemed to him that a primary acute pleurisy is a rarity, occurring in a non-tubercular subject. The last series of cases of what would be called primary pleurisy he had seen were in persons predisposed to tubercle, and in some of the cases tubercle subsequently developed. In short, so called primary plastic pleurisy occurs only in tuberculously disposed individuals; other forms are secondary to some other process, as Bright's disease, septicæmia, etc. Trousseau calls attention to latent pleurisies with effusion, as being often an expression of a tuberculous diathesis, while also a latent pleurisy may occasion development of that diathesis. Two cases illustrating these views have lately come under his notice.

DR. O'HARA said that although he had not had much experience with latent pleurisy, he recalled a case of a young man seen five years ago, where extensive effusion into one side of the chest had unexpectedly occurred, and when detected had been removed by tapping. Apparent recovery then ensued, to be followed in a few weeks by copious effusion into the other pleural cavity. Tapping was again resorted to, the effusion never recurred, and the patient remains healthy and free from tubercle at the present time. He would like to ask if when the term "all the serous membranes were affected" was used, those of the brain were included.

DR. TYSON replied that there had been no head symptoms in the sailor's case.

DR. SHAKESPEARE closed the debate by referring to the causes of tuberculosis in general and its mode of diffusion through the organism. He called attention to the failure in discovering any caseous focus, while admitting the possibility of such, if minute, escaping the most painstaking search. In this and similar cases all that could be safely said was that *the caseous point was not found.* Assuming, for illustration, that the point in the kidney might have been the origin of the auto-infection in this case, he referred to the communication between the left renal vein and the inferior mesenteric vein, and the direct communication with the portal system thus effected. As to the point raised by Dr. Musser, he believed in plastic pleurisies distinct from tuberculosis. He had examined very many microscopic sections of pleuritic adhesions, and very many had proved to be free from tubercle. Authors who have made original investigations on man and the lower animals, have also as distinctly recognized a plastic pleurisy without tubercle, as they have one associated with this formation. He thought tapping in a person not predisposed to tubercle was no more likely to produce this disease than tapping an anasarcous limb. He was well aware of the facts dwelt upon by Drs. Musser and Formad, viz., the association of tapping with tuberculosis and of plastic pleurisy with tuberculosis, but he believed that the frequency of this association had been exaggerated. He thought that in view of the well-grounded belief that in certain classes of animals, as well as in certain families of men, inflammation tends to linger, to produce accumulations which are prone to degeneration, and to *excite* local or general tuberculosis, it is more logical to conclude that in such cases as above mentioned there is at the outset a tainted constitution—a soil already sowed with the dormant seeds of disease waiting to be awakened to their active processes of destruction by the stimulation of an exciting cause. The more frequent the action of the exciting cause, the more certain is this dormant tendency to be aroused.

DR. J. H. MUSSER exhibited

TWO CASES OF CARCINOMA OF THE STOMACH.

Case I.—Scirrhus of the pylorus; general proliferation of the connective tissue; interstitial nephritis. Malignant disease of the pylorus and of the lesser curvature of the stomach was diagnosticated when the patient applied at the Medical Dispensary of the University Hospital, May 14, 1882, for treatment, on account of the physical signs especially, and of some points in the clinical history. Palpation and percussion revealed a firm, non-pulsatile, immovable, slightly painful tumor in the middle of the epigastric region, one inch to the left of the median line, about the size of a turkey egg. When lying down the abdomen was slightly scaphoid, but the left upper quarter was distended. A curved line extending downwards from the umbilicus to the flanks, represented the lower limit of this swelling, which was soft and resistant, tympanitic on percussion, and with care could be discerned as starting from the hard tumor in the epigastrium. In short, it was due to a distended stomach. Although the tumor was not in the position of the pylorus, and although the patient had never vomited, yet pyloric disease was determined upon because of the gastric distention. On account of absence of marked obstruction, the position and the occurrence of pain in the *lumbar* region, disease of the lesser curvature and the posterior wall was decided upon. The autopsy revealed that the malignant growth surrounded the stomach at the pyloric end, but being greater in extent in the lesser curvature. An adhesion to the left lobe of the liver explained the position of the tumor. The patient first noticed the localization of the disease in November, 1881, by the occurrence of pain in the epigastrium following a jar. She noticed that her health had failed three months before, and that menstruation had ceased six months previous to the epigastric pain. Note here the failure of health before any local evidences of disease, not even dyspeptic symptoms. She

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was a widow, æt. 40 years, with one child, her health had always been very good, her circumstances moderate, and her habits exemplary. In addition to a constant burning pain increased by food, her appetite was poor, tongue pale, with enlarged papillæ; flatulency was marked, and the bowels constipated. She presented a sallow, cachectic appearance, was somewhat emaciated, extremely anæmic, with cardiac, arterial, and venous blood murmurs, and accentuated second-sound. She was under observation until her death, October 17, 1882. The pain and constipation were relieved by treatment, but the course was only downwards. In addition, I may note the cachexia became more marked, and the classical appearance of the face was wonderfully depicted—transverse and vertical lines on the forehead and semi-circular lines around the mouth from the alæ of the nose to the chin, and vertical lines on the chin and lower lip. The hue of the countenance changed—growing darker and darker. This peculiar hue of the face Dr. Musser considered the most reliable symptom of approaching dissolution. It was noted one month before death. During the last two months of her illness she suffered much from soreness of the mouth and tongue without visible lesions; from burning in the fauces; difficulty of deglutition, acidity, vomiting taking place every third or fourth day of a clear acid fluid, coagulated milk bile-stained, and "coffee-ground material." A painless watery diarrhœa occurred frequently, with tarry masses. Œdema of the feet and ankles took place six weeks before death. The tumor grew in size and changed position, falling downwards. Three days before death it was noted to pulsate, was tender, and was three inches long, extending from the median line to the left on a level with the umbilicus. *Autopsy* (twelve hours after death).—Extreme emaciation; rigor mortis marked; œdema of feet. Heart slightly enlarged, the left ventricle walls 8¾ lines in thickness; heart weighed 7 ounces. Aorta 1 inch 1¾ lines in diameter, and slightly atheromatous. Deposits of fat along the septum were noted, and the muscular tissue itself was fatty. The stomach was in the position defined a few days before death, was greatly dilated, with the disease at the pyloric end extending along the lesser curvature four, along the greater curvature two, inches, and completely encircling the organ. The stomach walls became thickened, with much hypertrophied muscular coat, as they approached the diseased area. The internal surface of the tumor was flat, elliptical, and defined by an everted lip of varying thickness about 4 lines high. The surface was uneven, some nodules being half as thick. The most central portion presented distinct evidences of ulceration. The liver was rather larger than normal, seemed fatty, and was not indurated. The kidneys were small, hard, and the capsule peeled off with difficulty. Microscopic examination of the stomach, liver, and kidneys, Dr. W. E. Hughes assisting, showed abundant irregularly shaped epithelial cells packed closely in a fibrous stroma, but slightly developed in and containing numerous nuclei. Liver-cells fatty and pigmented. Proliferation of the connective tissue around the hepatic and portal veins was noted, many nuclei proving its recent origin. The kidney was markedly cirrhotic, the connective tissue being *not* of recent formation. Note the general proliferation of connective tissue in the organs. No albumen was detected during life in the urine, nor were any renal symptoms noted, yet there was undoubted interstitial nephritis belonging to the variety described by Gull, Sutton, and Mahomed. The malassimilation consequent upon the gastric lesion was the predisposing factor in the production of this general change.

Case II.—Scirrhus of the pylorus; symptoms simulating idiopathic anæmia. F. R., æt. 54, white, German, resident of a healthy locality, but much exposed as lumberman during the winter. Addicted to constant use of spirits, malt liquors, and tobacco. Had a fever of six weeks' duration at the age of sixteen years, and eight years ago some pulmonary inflammation. Never had malaria or syphilis. Does not know cause of mother's death; seven brothers and sisters healthy; father died of old age; his own three children living and healthy. Admitted to University Hospital December 20, 1878. During the previous winter had numerous gastric attacks, as shown by pain and loss of appetite. In the spring and summer he lost flesh and strength, and was subject to pain in the bowels and in the hepatic area, flatulence, pyrosis, and constipation, but never vomiting. On account of salivation in June, he became especially debilitated. At time of admission, weight 118 pounds, usual weight 170. Lies on left side, perfectly apathetic, with the physical and mental processes slow of action. Extremities cold, very anæmic, conjunctiva and mucous membrane very pale; sclerotics pearly white; complexion of a sallow, dirty hue. Palpitation of the heart, dyspnœa, and subjective ear-noises were noted. Temperature irregular; appetite poor; flatulence and pyrosis, pain and tenderness in epigastrium; no definable tumor, but a sense of induration. Hepatic and splenic areas of dulness normal. No venous hum. Heart sounds weak. Urine, sp. gr. 1018, neutral reaction, albumen one-sixth; no casts, bile, or sugar; phosphates not in excess. Blood, white corpuscles in excess, red greatly decreased in number. Ophthalmoscopic examination; slight retinitis. O. D. pallid; central artery dilated. Venous blood paler than usual. Absorption of choroidal epithelium, allowing choroidal circulation to be seen. Macula healthy; no hemorrhage throughout fundus. Both eyes present the same appearances. A low typhoid state soon developed, with diarrhœa and excessive flatulence. For three days prior to death vomiting occurred. He died December 30, 1882. *Autopsy.*—Stomach alone examined. It is to be regretted that the full record was lost. Stomach adherent to liver and transverse colon. Lesser curvature from pylorus half way to cardiac orifice, infiltrated with cancer, extending two inches over the anterior wall, and at the pylorus, encircling the organ. Pancreatic and biliary ducts pervious. Microscopically, the growth was found to be scirrhous carcinoma.

Remarks.—On account of the profound anæmia and the absence of tumor and vomiting, idiopathic anæmia was considered. The examination of the blood, and condition of the eye-ground, contra-indicated such a diagnosis. The normal size of liver and spleen, and the non-glandular involvement excluded leucocythemia. It is to be regretted that the exact numerical blood-count was not recorded. In this case the lesser curvature was very much involved, and a distinct tumor was absent; quite the opposite of Case I.

DR. A. P. BRUBAKER exhibited for Dr. H. LEAMAN, a

TUMOR OF BRAIN.

John J., æt. 53, laborer. When first seen, the patient was lying on his back, with head drawn backwards into the pillows, and complaining of stiffness and soreness in back of the neck. The mouth was widely opened and parched, and the breathing deep and heavy. He was in a semi-unconscious condition, from which, however, he could easily be aroused, but soon relapsed into his former state, which was attended by stertorous breathing. Speech and deglutition were both interfered with, but not abolished. There was involuntary passage of urine, but the bowels were constipated. Venereal ideas were excessive, but accompanied by complete impotence. Voluntary move-

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ments of the extremities and also the power of coördination were considerably impaired. Pulse and temperature were normal. Liquid food was taken with difficulty. His condition had been as described four days previous to my first visit on September 4, 1882. The symptoms gradually increased and coma supervened, which ended in death, September 17, 1882. Following history was obtained from the family: Twenty-six years ago, the patient was confined to bed with "nervousness," for a period of two years, when he passed a calculus about the size of a date-seed; again a month later, another smaller one. His bladder continued to give him more or less trouble up to death. He had his clavicle broken nineteen years ago, but there was no injury to the head. About sixteen years ago he was suddenly seized while at work, with a severe headache, and became totally blind, which lasted for twenty-four hours. This was relieved by wet cups to back of the neck. From that time, he was subject to what they called "shaking spells"—when standing there would be a violent trembling of the knees and shaking of the arms. These attacks occurred about once a month, and occasionally three or four times a day. They increased from year to year in frequency and severity, and appeared to be excited by high winds and storms. In February, 1882, he was seized with paralysis, beginning in the left little finger, thence gradually extending to the ring and middle fingers, until the hand became powerless, but was able to move his arm. Then followed a numbness in the outer side of the left side, attended by impairment of the power of coördination, so that, on attempting to walk, he was compelled to run to keep from falling. He frequently fell in the street, and had to be carried home. Last February, loss of speech supervened, which lasted for one month; the patient then began to speak in monosyllables, after which speech gradually returned.

Autopsy.—Congestion of the entire brain. On removing it, four or five ounces of serum ran from the cranial cavity. Brain substance seemed to be normal throughout. In the right fissure of Sylvius was embedded a tumor about one inch and a half in diameter, which was almost entirely concealed from view by the convolutions. It rested upon the convolutions of the island of Reil, completely disorganizing them. The inferior extremities of the ascending frontal and parietal convolutions were normal. The upper surface of the temporo-sphenoidal lobe was somewhat disorganized. The tumor apparently sprang from the pia mater.

Report of the Committee on Morbid Growths.—A section made from the tumor presented by Dr. Brubaker, and examined microscopically, showed that the growth was tubercular. Its histological structure is seen to consist of fibrous tissue constituting a reticulum, the meshes of which are filled with lymphoid cells. These appearances are very distinct at the peripheral zone of the tumor, while the centre and inner zone are in a state of retrograde metamorphosis, presenting a very granular appearance, scarcely stained by the carmine. The bloodvessels are mostly obliterated, their lumen being filled with coagulated blood or granular *débris*.

DR. W. H. PARRISH exhibited specimens of

ENLARGED LYMPHATIC GLANDS.

I show five lymphatic glands removed from the axilla of a patient whose breast I amputated about nine months ago. The case was then reported to the Obstetrical Society and was published in THE MEDICAL NEWS of July 8, 1882. The specimen was referred to a committee, and Dr. Beates made a microscopical examination, and concluded that the growth was an adenoma that had undergone carcinomatous change. Of the enlarged glands presented this evening, three about the size of an almond were removed from the axilla, a fourth of smaller size from just below the clavicle, and the fifth from the side of the neck about an inch from the clavicle. The patient presents no cachexia. The specimens were referred to the Committee on Morbid Growths.

Dr. Parrish also exhibited

POLYPI FROM THE UTERINE CERVIX.

I also present this evening two small growths, each about the size of the last phalanx of the thumb, removed to-day with a wire écraseur. On Christmas eve, I saw for the first time a patient of French birth, a teacher, apparently about 35 years old. When I entered her room she was in a state of syncope from hemorrhage from the genitals. The hemorrhage had, however, ceased. With the application of hot wet-cloths over the front of the chest, and by hypodermic injections of whiskey, and aromatic spirits of ammonia, she in a few minutes revived so as to be able to tell me that she had not menstruated for three months, when suddenly bleeding began from the womb, and continued during the day with an exacerbation just before sending for me. As the patient's condition was evidently a critical one, I asked the direct question, if she had not had, or was not having an abortion. She said it was impossible. I then learned that she was single and 42 years old. A digital examination showed an intact hymen, and a substance in the vagina that at first touch felt very like an embryo of about three months. But I soon recognized that it was a growth attached to the lower part of the cervical canal, and that there was another distending the cervical canal. The latter felt still more like an embryo or ovum, and, in fact, in the absence of the one in the vagina might have at first misled me into thinking that the patient was aborting. Slight traction on it soon showed that it was attached. There was no return of the bleeding, and to-day, with the assistance of Dr. M. O'Hara, I removed both the growths with the wire, and without etherization or the use of a speculum. A remarkable feature of the patient's history is that she had always menstruated scanty, and at intervals of five or six weeks. Never before had she evinced a tendency to uterine hemorrhage. I am confident that the patient was not pregnant. I presume that, being virginal, she is approaching the menopause.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, December 26, 1882.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

INTESTINAL OBSTRUCTION.

DR. WEIR presented a specimen which illustrated intestinal obstruction occurring in the splenic flexure of the colon. The cause of the constriction was cancer. It was removed from the body of a woman 33 years of age, married, who entered the New York Hospital November 28, 1882, in the medical service. She had had complete obstruction for nine days previously, associated during the last few days with stercoraceous vomiting. The history was that she had had, some time last spring, an attack of intestinal obstruction, but not very severe, and from that time had suffered from attacks of constipation. The cause of the last obstruction could not be readily elicited, nor was any light thrown upon the subject by examination of the distended abdomen. It was recognized that there was great distention of certain coils of intestine, apparently in the site of the colon, though this could not be posi-

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tively made out. Examination with the rectal tube showed that the gut could be penetrated to the depth of twenty-eight inches; this was accomplished several times when large enemata were administered. These latter also established the fact that about one hundred ounces of water could be received each time into the bowel without unduly distressing the patient, when placed in the knee-elbow position. Prior to her admission to the hospital, which was on a Tuesday, she had received a great deal of treatment, the exact nature of which could not be determined. At the invitation of the visiting physician, Dr. Draper, Dr. Weir saw the case on Wednesday afternoon, at which time the patient had a temperature of 102° F., pulse 120. These symptoms, together with the stercoraceous vomiting, the duration of the case, and the history of constipation of marked severity, led him to the conclusion that delay should not be continued much longer, and he therefore proposed a preliminary rectal examination. It was determined, however, to repeat the injections, and to wait until the following morning, and if no relief was obtained, to then resort to surgical interference. Relief was obtained, the injections bringing away a certain amount of fecal material, and the discharge was followed by two additional fecal evacuations of a creamy, muddy color and consistence. The vomiting ceased, and the general condition of the patient was so much improved as to encourage postponement of the proposed surgical interference. On Friday the symptoms of obstruction again appeared, except the vomiting. The abdomen became more distended than it had formerly been, the temperature rose higher, and there were nausea and cessation of fecal discharge and flatus. On Saturday Dr. Weir again saw the patient, and it was then learned that her general condition had very much depreciated within the last two days. Dr. Weir then proposed that rectal examination be made, which was assented to, and he then introduced his hand (of 9¼ inches circumference) slowly into the bowel, but was unable to carry it up beyond the upper rectal pouch; though he could carry one finger sufficiently far to enable him to sweep over the cæcal region. This, however, could not be recognized. He had proposed to perform a right lumbar colotomy if it had been determined by rectal exploration that the cæcum was distended; or, if unable to determine this point, to perform enterotomy. The patient, however, was so much prostrated by the ether and examination as to forbid a resort to further surgical procedures. She did not rally, as was hoped, but gradually sank, and died twenty-four hours afterward.

The autopsy revealed cancerous disease of the splenic flexure of the colon, so slightly perceptible externally as scarcely to be recognized, There was also a most minute secondary involvement of the liver. No injury had been done to the rectum by the manual exploration. The point of obstruction was twenty-three inches from the anus. The cæcum was apparently in the normal position, and not distended with fluid, but with air. To this point Dr. Weir wished to direct the attention of the surgeons, because he had heretofore felt considerable confidence that in cases of obscure intestinal obstruction a rectal exploration might be available as a means of diagnosis, and, by the recognition of a distended cæcum, might enable the surgeon to act with greater accuracy. In this instance such exploration had failed. The experience of Dr. Halstead, also, who would follow him in the presentation of a specimen, had led to the conclusion, that when the cæcum was distended with air it might not always be readily recognized by the touch. Another point to which he would like to ask attention was the diagnostic value of injections of water, and of the rectal tube. Heretofore he had placed much reliance upon the rectal tube, especially when the French black tube was used, because this latter more readily showed on withdrawal any twisting or sharp bending that might have taken place. In two instances he had proved by operation or by autopsy, that the site of the obstructions had been quite accurately determined in this manner. He had found some difficulty in carrying the tube beyond the sigmoid flexure in the cadaver in four recent trials by Dr. Peabody, but in the living subject it could be quite easily introduced. This difficulty could be easily understood because of the difference in the condition of the parts. During life the intestines yielded to pressure more readily than in the rigid cadaver, and perhaps the end of the tube itself produced spasmodic contraction, and the gut consequently changed its position or that of the end of the tube. As to the injection of fluids, there was a fallacy in that means of diagnosis, because the opening in the large intestine might admit the passage of fluid beyond it. That error was committed in one instance where there was a narrowing of the transverse colon, in which case he had performed right lumbar colotomy. Prior to the operation large quantities could be injected, with but little return. In one trial of a large turpentine enema, the matters vomited were strongly impregnated with the odor of the injection, showing that the ileocolic valve had been forced. A final word might be added which would bear also on the case to be subsequently narrated. It was that the pathologist of the hospital had, in remarking on the difficulty that would have been encountered in recognizing the site of obstruction by a laparotomy, said that in six autopsies of intestinal obstruction he had lately made, he believed that in nearly every one from a similar cause, relief would not have resulted from an operation.

CASE OF INTESTINAL INCARCERATION.

DR. W. S. HALSTEAD presented a specimen with the following history: Anna B., æt. 35; Irish; widow; well nourished; mother of eight children (youngest five years old); was admitted to Charity Hospital, December 16, 1882, complaining of constipation, colicky pains, distention of abdomen, and vomiting. She states that she has, since her infancy, been subject to similar, but less severe attacks, and remembers five previous ones distinctly—the last having occurred in March of this year. Heretofore, has been promptly relieved by "medicine," her symptoms having persisted on only one occasion for as long a time as two days, and their subsidence being always coincident with the escape of much flatus. Constipation had attracted patient's attention for several days prior to present seizure, which developed suddenly, about one week before admission, while she was drinking a cup of tea. Since then, nothing has passed from her bowels. She vomited on the 15th, for the first time, a little mucus, and has continued to eject, at intervals of several hours, frothy mucus and possibly bile, but at no time stercoraceous matter. House physician gave a cathartic soon after admission. My attention was called to the case on the following day, December 19. The recorded history being incomplete, I will recite it as accurately as possible from memory: Found patient tossing from side to side, moaning loudly, and apparently in great distress. Countenance slightly flushed, but not anxious. Respiration 27; pulse 98; temperature 98.5°. Thighs flexed, abdomen much distended and unevenly so, everywhere tympanitic, and in no one region especially sensitive to pressure.

Diagnosis.—Intestinal obstruction. Prescribed morphine, hypodermically, and directed that enemata, as large as possible, should be administered with the longest available tubes.

December 18.—Patient confident that she is conva-

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lescing, assures us that she is free from pain, and has passed "wind" per anum. Respiration 22; pulse 104; temperature 98.5°. Cannot ascertain positively how much urine has been voided, but the nurse guesses four ounces in twelve hours. House physician states that hard œsophageal tube was introduced last evening to its fullest extent (about twenty inches), and that only one quart of fluid could be injected, which, when evacuated, brought with it mucus, but no gas, and not a trace of feces. Repeated the injection myself, with like result, and noticed that the tube was in several places most singularly bent and twisted.

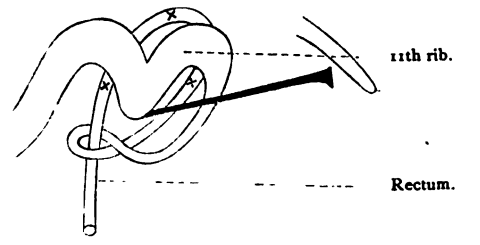
19th.—5 P. M. Pulse 120, and intermittent. 6 P. M. Patient anæsthetized. Assisted by Dr. Weir, proceeded to operate under carbolic acid spray (1-40). Incision in median line, from umbilicus to pubes. The peritoneum being divided, a small quantity of serous fluid escaped through the wound. The large intestine very much distended, and presenting a few small superficial ecchymoses, occupied the entire field of view, being folded upon itself longitudinally. The separation of the folds exposed the quite normal small intestine. After a somewhat prolonged and unsatisfactory search for the cause of the obstruction, which was evidently below the flexura linealis, there could be felt with the right hand a dense cylindrical band, about the size of one's little finger, very deeply situated, and stretching from near the promontory of the sacrum, obliquely upward and outward, to the parietes of the left hypochondrium, not far from the tip of the twelfth rib. The abdominal incision was then extended to within about two inches of the xiphoid cartilage. The obstructing cord being exposed, it could be seen to have its apparent origin from the transverse colon, and was divided between two stout catgut ligatures, which were passed around it by means of an aneurism needle. Below the band, and clearly compressed by it, were two tubes of large intestine, one of which filled with air as soon as released, while the other did not. The patient's condition was too bad to justify much further investigation, although it was evident that the disposition of the sigmoid flexure was most puzzling, and possibly offered another obstacle to the escape of intestinal contents. The distended colon, which had been protected throughout the operation by towels warmed in a solution of carbolic acid (1-40), was replaced without very much difficulty, and the wound united by a double row of sutures; the deep, of silver, included the peritoneum.

20th.—7 P.M. Patient has just died. Ever since the operation was observed by internes and nurses to have passed large quantities of gas from the bowels.

21st.—12 M. *Autopsy:* Quite firm union all along line of incision. Transverse colon slightly adherent to wound a little below umbilicus. Large intestine reached to fourth intercostal space on left side. Attached to the anterior surface of transverse colon at about its middle, and having its origin in the great omentum, was one portion of the divided bowel with its catgut ligature; the other part being intimately blended, and apparently continuous with the diaphragmatic peritoneum between the eleventh and twelfth ribs. The specimens before you show the attachments of the band.

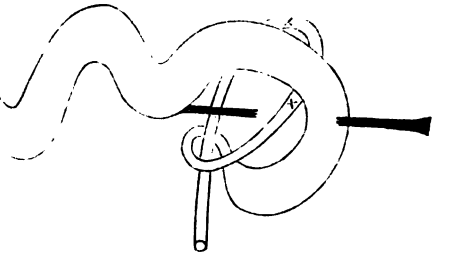
Figures 1 and 2, drawn in the light of the autopsy, are intended to illustrate what presumably existed before, and immediately after the operation. The xxx designate sigmoid flexure looped and twisted upon itself from right to left. The sigmoideo-rectal junction was sufficiently narrowed in the bight of the volvulus to prevent the ready escape of flatus per rectum. This constriction was evidently one of very long standing, and intensified somewhat by the underlying falciform fold of its mesocolon, which normally extends from the mesentery to the upper end of the rectum, and which, in this case, was unusually strong and prominent, with its concavity directed ventrally.

FIG. 1.



The *pathogenesis* may then have been: 1st. Non-inflammatory adhesion in intra- or early extra-uterine life of a considerable portion of large omentum (mesogastrium) to parietal peritoneum—adhesions of this nature being incidental to development, as urged by Sanger and verified by Soldt. 2d. Embarrassed growth of sigmoid flexure, giving rise to a rotation of same, which was permitted by the great length of the free

FIG. 2.



mesocolon at that early period, or by its coincident development. 3d. Narrowed sigmoideo-rectal junction; its growth having been somewhat restrained and its lumen reduced by pressure from without. 4th. Acute symptoms due, as suggested by Busch, to sudden distention of gut above and retraction of mucous membrane from below omental band, possibly preceded by further intrusion of descending colon under the site of constriction. I would suggest in similar cases the advisability of operating early, not only that the patient may survive the shock, but to anticipate a degree of hyperdistention of the intestine from which it can never recover. If there is reason to suspect the existence of a further source of obstruction, or if the tension within the distended gut cannot be decidedly relieved by simpler measures, I believe that laparocolostomy or enterostomy, as the conditions may dictate, to be indicated.

DR. SANDS remarked that, in Dr. Weir's case, the failure to recognize distention of the cæcum was probably due to the existence of a band at the upper part of the rectum, which prevented the hand of the operator from making the usual excursions. In one case he had been able easily to ascertain, by manual exploration of the rectum, a distended state of the cæcum, the patient having a stricture situated in the sigmoid flexure.

DR. WEIR remarked that he had heretofore regarded manual exploration of the rectum as a reliable means of determining whether or not the cæcum was distended.

DR. SANDS further remarked that in inserting the tube with the view of determining the presence of a stricture, it should be remembered that the constriction might be sufficiently close to cause abdominal ob-

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struction, and yet not be so narrow as to prevent the passage of the tube. This condition was exemplified in a case he had already narrated to the Society, in which the ordinary black French tube was passed a distance of eighteen inches without encountering any obstruction. When the patient died a cancerous stricture of the rectum was found between six and seven inches from the anus, just large enough to allow the passage of the tube. Dr. Sands said that Simon had shown conclusively that it was impossible to pass an elastic tube beyond the splenic flexure of the colon, and that in cases where a great length of tube has been introduced the end of the tube had been arrested at the splenic flexure, the mesocolon allowing the tube to curve toward the right side.

DR. WEIR asked Dr. Sands concerning the value of exploration by means of the tube in any portion of the large intestine below the splenic flexure. He himself had already attached considerable value to such exploration if properly and repeatedly performed.

Dr. SANDS regarded such exploration as very valuable.

DR. GERSTER had observed a case somewhat similar to the one related by Dr. Halstead. In his case, however, he was able to detect at the operation the site of the obstruction. The patient was a boy, thirteen years of age, who had suffered from peritonitis eight weeks previous to his last sickness. The peritonitis had subsided under the ordinary plan of treatment, and the patient had recovered to such an extent as to be able to go to school. Two weeks afterward he was attacked by something which appeared like peritonitis. Morphine was administered, and he seemed to improve under the treatment so far as to permit the physician to attempt to evacuate the bowels by means of an enema. From the moment the enema was administered, very violent and alarming symptoms of intestinal obstruction developed. The chief reason why the effort was made to evacuate the bowels was the complaint of fulness of the abdomen, and entire absence of pain upon pressure. The symptoms which developed after the administration of the enema were intense vomiting and depression of the general system, with severe pain. The attending physician proposed to administer quicksilver to overcome the intestinal obstruction. A second physician was called, who found marked depression of the general system, feeble pulse, continued vomiting, and clammy perspiration despite the narcosis which had been produced by morphine; marked tympanitis also existed. The child, when aroused from his semi-comatose condition, always pointed to the left side of the belly as the seat of the pain. Dr. Gerster saw the patient in consultation, and proceeded to surgical interference for his relief. He made an incision which extended from the umbilicus almost to the symphysis pubis. Immediately upon opening the abdominal cavity the distended bowels rushed out through the incision, and filled it so full that it was impossible to form any adequate idea with reference to the position or condition of the abdominal contents. He extended the incision sufficiently far to admit of a full view of the abdominal contents, and then introduced his hand and felt most of the intestines to be movable, except one bunch consisting of four or five loops, which were anchored in the right iliac fossæ. Separating the loops of intestines constituting this bunch, he found they were bound down by a band one-fourth of an inch in width, which passed across one loop of the mass and formed the true cause of obstruction. Upon closer examination it was also ascertained that this apparent band was the vermiform appendix, which had evidently become attached to the abdominal wall during the previous attack of peritonitis. It had passed across a portion of the ileum about five inches from the cæcum, and its apex had become attached to the mesentery of the ileum upon the other side. The upper portions of the ileum and small intestine were intensely distended and hyperæmic, and the lower portion was pale and normal, as was also the large intestine. There was no evidence of acute peritonitis at the time of the operation. He applied a stout double catgut ligature to the band, or vermiform appendix, and divided it between the ligatures, whereupon the intestinal contents immediately rushed from the superior to the inferior portion of the ileum. Dr. Gerster then experienced great difficulty in attempting to replace the intestines within the abdominal cavity. Hoping to diminish their distended condition, he introduced the smallest size hypodermic needle, but the escape of gas was so slow that he withdrew the needle, intending to perform a large number of punctures, but when the needle was withdrawn, he noticed that one minute drop of intestinal contents followed, and appeared upon the external surface of the gut. He wiped the surface of the gut very carefully, and then introduced an elastic catheter into the bowel through the anus and administered an enema; his idea being that, the obstruction being removed, probably a portion of the intestinal contents could be removed in that way. The plan proved to be perfectly successful. The injection of hot water through the catheter brought away feces, and a large quantity of gas also escaped, followed by solid fecal masses. After the evacuation had occurred, the intestines collapsed so much that no serious difficulty was experienced in restoring them to the abdominal cavity, and the wound was closed. The abdominal cavity was not exposed longer than twenty-five minutes, but the patient died of collapse about eleven hours after the operation.

DR. HALSTEAD remarked that he also introduced a fine hypodermic needle into the distended intestines in his case, and observed precisely the same thing which Dr. Gerster had mentioned, namely, the exit of a small drop of intestinal fluid upon the withdrawal of the needle. Only a small amount of gas escaped, and that very slowly. Furthermore, Dr. Weir retained the intestines in position to a considerable extent by means of towels which had been dipped in warm, carbolized water, and after some manipulation they were returned to the abdominal cavity.

ENCYSTED NEEDLE IN THE LEG.

DR. POST presented a portion of a large needle enclosed in a cyst, which he had removed from a woman's leg about a hand's breadth above the internal malleolus. The patient was forty-five years of age, and gave the history that the portion of needle had been in this position during the last twenty-five years. The point of special interest in the specimen was that the needle was firmly encysted, the cyst, as exhibited in the specimen, almost completely surrounding it. At first it caused but slight irritation, and subsequently gave the patient no trouble whatever until a short time before she applied to him for relief. The needle was a large one, and the portion removed was two centimetres in length.

WEST PHILADELPHIA MEDICAL SOCIETY.

Stated Meeting, Monday, January 8, 1883.

S. S. STRYKER, M.D., PRESIDENT, IN THE CHAIR.

DR. R. M. MCCLELLAN read a short paper, entitled

NOTES ON THE NOVEMBER EPIDEMIC OF DIPHTHERIA.

The discussion was opened by a question from the PRESIDENT as to the experience of the members of the

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Society in the treatment of diphtheria with large doses of calomel.

DR. BARTLESON said he had, in several cases, used twenty-grain doses every three hours, till two drachms had been taken. One of these was a case of membranous croup in a child seven years old. The child did not recover. Another was a child five years old, who got well.

DR. DULLES said he had first used calomel in large doses in the treatment of diphtheria last October. Soon after reading a strong recommendation of this method, he was called to an infant of six months, whose throat was full of membrane, so that it was hardly able to breathe, and could not nurse. He ordered five grains of calomel, to be given hourly, and in the intermediate half-hours, so as not to make black wash of the calomel, a teaspoonful of lime-water. After ten doses had been given, he saw the baby again, and to his great surprise found it very much better. The next day, he put his little patient upon sulphate of cinchonidia, and in a few days more she was entirely out of danger. After this, he had three more cases in the same row of houses, and all but one were treated similarly—the exception was an adult who had a very light attack. These did as well as the first case. In the case of the infant first mentioned, the calomel did not produce any purging; in the others it brought on three or four characteristic stools. With his limited experience, and with what was already on record, he was inclined to use again this method.

DR. J. H. MUSSER said that his own experience in the recent epidemic was that the cases were of a mild type, so that they got well almost without treatment. He used stimulants and spray of carbolic acid and lime-water. He had one case, however, which was of a different character. In this, a child, when first seen, had a sore throat like that of scarlet fever, with other symptoms of this disease, and, on the second day, a characteristic rash. Two days later, a diphtheritic membrane began to form in the fauces, and extended down into the larynx, and up into the nares. Apparently, this was a case of scarlatina, followed by diphtheria; or did the scarlatinal condition predispose to the infection with diphtheria? or were the two diseases developing at the same time? He had another case where all the pharyngeal symptoms of diphtheria were present, but in two days a scarlatinal eruption appeared, and the child died with the coma of scarlatina. As to the question of a distinction between diphtheria and membranous croup, he thought they were apt to be associated in the same epidemic, or one would follow the other. In all cases of membranous croup which he had seen, he could trace a connection with diphtheria, and therefore he thought membranous croup to be but a laryngeal diphtheria. Then, again, death is almost sure to take place from stenosis of the larynx before a septicæmia develops, and hence before the contagious period of the disease has arrived, thereby preventing the infection of other members of a family.

DR. M. B. MUSSER said, in reference to the relation between diphtheria and membranous croup, that he had never seen two cases of membranous croup in the same family at the same time; while in diphtheria, where one case occurs there are usually others similarly affected, or, at least, they have sympathetic sore throat. In regard to treatment, he had some time ago seen a case in which Dr. Meigs, whom he had called in consultation, suggested the use of the hyposulphite of calcium. Other remedies had been used without apparent success, but when this was tried, a most decided improvement took place within twenty-four or forty-eight hours. Since then he has had equally good results from its use. He uses, in nearly all cases, quinine by suppositories, and the tincture of the chloride of iron and chlorate of potash, together with stimulants. Locally he applies the persulphate of iron, dissolved in an equal quantity of glycerine.

DR. BARTLESON said that he used boracic acid in a solution of two drachms in half an ounce of glycerine and half an ounce of water. After its employment he has seen the membrane melt away. For internal treatment he uses iron and potash, adding hydrochloric acid, so as to give the mixture a little free chlorine.

DR. MULLEN had seen ten cases of diphtheria in one family; five were severe, and five were not. As a diagnostic point, he called attention to a peculiar and very offensive odor about the breath and flatus. In treatment he uses locally lime water, the vapor of slaking lime, and insufflations of sulphur, together with a general tonic and stimulant course. He has seen dropsy follow diphtheria as well as scarlatina.

DR. ROCKWELL thought there was a difference between membranous croup and diphtheria. In the former he had seen patients die very soon of asphyxia without adynamia. In diphtheria he had seen admirable results from the local application of lime-water by means of the atomizer.

DR. STRYKER inquired whether, in the sore throat of scarlet fever, there was any destruction of tissue with the formation of membrane.

DR. J. H. MUSSER replied that in such cases there was often sloughy tissue, which, however, was different in appearance from the membrane of diphtheria. He thought there were cases where diphtheria existed as a complication of scarlatina.

DR. ANDERSON said he had had, last year, a case of this sort. A child had had scarlet fever, and diphtheria followed. A week or so later, a brother of this child had apparently scarlet fever, with characteristic rash, and no membrane in the throat. But three or four days later a diphtheritic membrane formed, with high continued fever, which, after convalescence, was followed by most persistent paralysis. He inquired whether paralysis was more apt to follow mild or severe attacks of diphtheria?

DR. J. H. MUSSER inquired of Dr. Dulles whether the occurrence of the rash in diphtheria had any analogy to the occurrence of a scarlatinal rash after surgical operations.

DR. DULLES said that after surgical operations there is not infrequently a scarlatinal eruption, which is usually mild, and in regard to the etiology of which nothing is certainly known. It is probably a coincidence, and yet may be hastened in its development by the operation. A similar rash is observed in the diphtheria of puerperal women, which may also be considered analogous. But the frequent occurrence of rash, like that of scarlatina, with well-pronounced diphtheria, and of a sore throat, like that of diphtheria in unmistakable cases of scarlet fever, suggests something more than coincidence. It suggests a relationship between these two diseases, which is all the more probable when we consider how generally they are associated as epidemics.

CORRESPONDENCE.

OVARIOTOMY STATISTICS.

To the Editor of THE MEDICAL NEWS:

DEAR SIR: Last summer I wrote to Mr. Knowsley Thornton, of London, begging him to be so kind as to furnish me with an account of the latest statistics of ovariotomy in Great Britain, including his own, for the new edition of my *Surgery*. When his communication reached me, it was too late for me to avail myself

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of his kindness, and I therefore wrote to him at once, asking permission to publish the statistics in THE MEDICAL NEWS, to which he promptly consented. As showing the latest triumphs of ovariotomy, these figures cannot fail to be of deep interest to the ovariotomists of this country. Mr. Thornton has great reason to be satisfied with his own results, reflecting, as they do, great credit upon his methods and operative skill.

I am, very truly, yours,
S. D. GROSS.

ELEVENTH AND WALNUT STREETS, January 17, 1883.

22 PORTMAN STREET, LONDON W., November 30, 1882.

DEAR DR. GROSS: I fear you will think I have forgotten my promise. At last I send you the statistics. I have found it very difficult to get them. I can get nothing later as to Clay's and Dr. Keith's, only up to October, 1881. The others are almost to date.

	Cases.	Recovered.	Died.	Mortality per cent.
Dr. Clay,[1] of Manchester,	93	64	29	31.11
Mr. Spencer Wells,[2] .	1088	847	241	22.15
Dr. Keith,[3] . . .	381	340	41	10.76
Mr. Knowsley Thornton,[4]	328	293	35	10.67
Mr. Lawson Tait,[5] . .	226	199	27	11.94

Dr. Peaslee (page 276) credits Mr. Clay with two hundred and fifty cases; recovered, 182; died, 68; mortality, 27.2. I have not been able to verify these results, and therefore have not given them in the above table. The discussion in the *British Medical Journal*, in 1880, failed to elicit any statement from Clay himself *as to results*. He then said that he had performed four hundred before he ceased to operate. I think, under any circumstances, his results should hardly be given in comparison with those of Wells, Keith, Tait, and myself, as ours are thoroughly authenticated by published tables; Clay's never have been.

I think my own mortality answers your question as to the value of the spray. I did not know until I began to look up the matter for you that I actually have got slightly the lead.

Trusting that, though late, the figures may be of some use to you, believe me, with much esteem,

Very truly yours,
J. KNOWSLEY THORNTON.

DR. GROSS, PHILADELPHIA.

THE EARTH DRESSING.

To the Editor of THE MEDICAL NEWS.

SIR: The editorial article in your issue of December 30th, "Earth Dressing in Germany" gives an incorrect notion of the material used in dressing wounds at Prof. Esmarch's clinic, and I beg to be permitted to call attention to it. The writer describes the material as "earth," and "earth-mould," and claims for Dr. Addinell Hewson the credit of having introduced it as a surgical dressing. But it is quite a different thing. Dr. Hewson used "the yellow subsoil" "from deep diggings" (to quote from his monograph) after drying and sifting it; whereas the dressing introduced by Neuber into Esmarch's practice is the ordinary peat ("Torf"), which is generally used for fuel in North Germany. After being dried it is ground up into a coarse granular and fibrous mass, which is enclosed in bags of gauze, and sprinkled with some antiseptic solution (5 per cent. carbolic acid, or corrosive sublimate 1 to 1,000), or mixed with 2½ per cent. of iodoform, and applied to wounds by means of "crinoline" bandages.

I had the opportunity in May, last, of observing the application of this dressing and its gratifying results at Esmarch's clinic; and have, since July, employed it frequently at the New York, St. Luke's, and Chambers Street Hospitals in this city. It has proven the most satisfactory and cheapest form of antiseptic dressing that I have tried; and in six years I have used the carbolized gauze and jute, the salicylated and borated cotton and "antiseptic irrigation."

The peat may be obtained from Mr. J. Neuber, P. O. box 1410, New York City. Two hundred kilogrammes cost, delivered here, about $25. This quantity fills a case a little larger than the average dry-goods box, and will be sufficient for an active surgical service of fifty beds for the period of three or four months.

Respectfully yours,
WILLIAM T. BULL, M.D.

2 EAST THIRTY-THIRD STREET,
NEW YORK, January 15, 1882.

[1] Mr. John Clay's translation of Kiwisch's Clinical Lectures, 1860.

[2] Tables in book and personal communication to me on November 29, 1882.

[3] Letter to Mr. Wells, October 17, 1881.

[4] My own are down to date.

[5] Paper published in Birmingham Medical Review and British Medical Journal. Total number of operations down to August 5, 1882.

NEWS ITEMS.

BROOKLYN.

(*From our Special Correspondent.*)

THE MEDICAL SOCIETY OF KINGS COUNTY held its sixty-second annual meeting on the 16th inst., and the following were elected as officers of the Society for the ensuing year: *President*, G. G. Hopkins, M.D.; *Vice-President*, F. H. Colton, M.D.; *Secretary*, R. M. Wyckoff, M.D.; *Treasurer*, J. R. Vanderveer, M.D.; *Librarian*, T. R. French, M.D.; *Censors*, Drs. A. Hutchins, C. Jewett, J. S. Wight, B. F. Westbrook, and G. R. Fowler. Two *delegates* to the State Medical Society, Drs. E. N. Chapman and L. S. Pilcher.

A lively discussion arose over a resolution offered by Dr. Skene, rescinding the vote of the November meeting, instructing the delegates of this Society to the American Medical Association and to the State Society to vote against the so-called "new" Code. This resolution was carried, under a call for the yeas and nays, by a vote of 49 against 26. This action leaves the delegates uninstructed upon the Code question, but does not affect the vote formerly taken expressing the Society's sentiment of opposition to the new Code.

THE STAFF OF THE KINGS COUNTY HOSPITAL has been somewhat unsettled lately. The Commissioners of Charities made some appointments, December 23, to the consulting staff and then constituted that staff a visiting staff. On January 20, however, the matter was reconsidered on the request of members of the old consulting staff, and it was ordered that the former status should be restored.

BUFFALO.

(*From our Special Correspondent.*)

THE ERIE COUNTY (N. Y.) MEDICAL SOCIETY AND THE NEW YORK CODE.—At the annual meeting of the Erie County Medical Society, held on the 8th inst., the following resolution was adopted:

"*Resolved*, That the Erie County Medical Society disapproves the action of the State Medical Society, at its last meeting, in adopting the report of the special committee revising the Code of Medical Ethics."

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CHICAGO.

(*From our Special Correspondent.*)

COUNTY HOSPITAL.—Chicago is having much trouble with its great public hospital, the Cook County Hospital. The Board of County Commissioners, under whose control it is placed by law, has been in more or less of a turmoil for many months among themselves regarding its management. Meanwhile the county is spending nearly or quite a quarter of a million dollars in erecting two additional brick pavilions and a central executive building, which will be ready for occupancy some time next summer.

The troubles of the hospital have not, however, been confined wholly to the secular management, for within two years there have been three successive medical boards. As soon as a member of the medical staff has any difficulty with the management, and the fact reaches the official ears of the Board of Commissioners, the remedy for the difficulty—the Board seems to practise a specialty in the use of a single remedy—appears to be to turn out the whole corps of doctors, and the remedy is promptly administered. Such frequent changes are a little disturbing to the regularity of clinics, and somewhat to their efficiency, although it is always found that the staff are ready and glad to give clinical instruction to students.

For the outlook for medical teaching at this point there is satisfaction in the fact that the county hospital is increasing in importance, and in the number of cases treated every year, and the further fact that there are now so many medical colleges near it that it must be largely used in the years to come as a centre for clinical instruction. It now has nearly four hundred patients constantly; this number cannot be expected to decrease so long as the present rapid growth of the city continues. This growth is now about thirty thousand annually. The municipal census of 1882 (required by law to be taken every two years) showed a population of sixty thousand six hundred over the government census of 1880.

The County Hospital occupies a large block of land—over twelve acres. There are four medical colleges so near the hospital grounds that they are simply separated from it by a street—they "surround" it. Three belong to the regular profession, and two of them are for the education of men—the "Rush" and "Physicians and Surgeons'." One, the "Woman's," is for the education of women exclusively. The fourth school belongs to the persuasion of minute pellets.

MONTREAL.

(*From our Special Correspondent.*)

MCGILL COLLEGE.—The students of the first and second years have petitioned the Faculty and Board of Governors for the removal of Dr. Wright, the Professor of Materia Medica, on the plea that his lectures are diffuse and unpractical. They resolved to absent themselves from his lectures after Christmas, but a compromise has been made, and the trouble temporarily arranged for the session.

PARASITES IN CANADIAN PORK.—Mr. A. W. Clement examined at the city abattoirs one thousand hogs, and found four trichinous, seventy-six "measley," and thirty-seven with echinococci. The proportion infested with trichinæ is considerably smaller than in American hogs, as shown by the Chicago and Boston examinations. Trichinosis is a very rare disease in Canada; only twelve cases have been recognized, three in Hamilton, Ont., in 1868, and nine in Montreal, in 1870. Four post-mortem and dissecting-room cases have been recorded.

THE HEALTH OF MASSACHUSETTS.—The annual report of the State Board of Health, Lunacy, and Charity, has just been submitted to the Legislature. The report states that Massachusetts is more exposed to smallpox than any other State, and that in 1881–82 the disease appeared in about thirty cities; but the deaths from this disease in 1882 were less than in Chicago in one week. The year 1882 was one of average health, and no disease can be said to have prevailed excessively. Malarial fever has not appeared in so many of the towns east of the Connecticut as in the previous years, but in the western part of the State it seems to have been more prevalent than ever. The number of i n people in the State is at least 5,100, a net increase of about 200. During the year 52,416 immigrants arrived in the State by sea. Probably 30,000 of these remained in the State, and as many more came from other quarters.

GUITEAU'S REMAINS.—The Rev. Dr. Hicks, the spiritual adviser of Guiteau, has executed a legal instrument transferring to Surgeon-General C. H. Crane, U. S. A., all his right and title to Guiteau's body. The paper recites the clause of the will by which Guiteau bequeathed his body to Dr. Hicks, and it bears evidence of acknowledgment before a Justice of the Peace. In reply to inquiries Surgeon-General Crane said he was unable at present to give any information with regard to the final disposition of the assassin's remains.

FIRE IN AN INSANE ASYLUM.—A fire in the Kings County Hospital for Incurable Insane, in Flatbush, L. I., endangered the lives of fifty lunatics on Thursday morning of last week. A night nurse while making his rounds at 5 A. M., found smoke pouring from the sitting-room on the second floor into the hall. He gave the alarm, summoning Medical Superintendent Woodside and six nurses. Half of them set at work to put out the fire and the others to remove the insane patients in the ward. An alarm was also sent to the Flatbush Fire Department. The hose in the building was put to use, and, there being plenty of water, the fire was speedily subdued, and the firemen were not needed before their arrival. Much difficulty was experienced in getting the patients out of their rooms to a place of safety. Many had to be carried out in the arms of the nurses. The fire is believed to have been caused by the accumulation of refuse around the radiator used to heat the room where it broke out.

HONORS TO PROF. VON PETTENKOFER.—PROF. VON PETTENKOFER has received from the King of Bavaria, a patent of hereditary nobility in recognition of his invaluable contributions to the science of hygiene.

DR. H. B. SANDS, of New York, was elected a corresponding member of the Société de Chirurgie, of Paris, at its annual meeting on the 8th instant.

AUTOPSY OF GAMBETTA.—The post-mortem examination revealed a contraction of the ileo-cæcal valve, the result of an old inflammation of the bowel and extensive purulent infiltration around the cæcum and ascending colon, with traces of recent peritonitis, thus confirming the ante-mortem diagnosis of perityphlitis and pericolitis. Under the circumstances a surgical operation would have been unavailing.

LONG ISLAND COLLEGE HOSPITAL.—The opening exercises of the twenty-fourth session of the Long Island College Hospital took place last Tuesday evening. The annual address was delivered by Health

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Commissioner Raymond. At the close of the exercises a crayon portrait, handsomely framed, of Dr. S. G. Armor, Dean of the Faculty, was presented to Dr. Armor, in behalf of the students, by Mr. J. W. Whitney, of the senior class.

COMPLIMENT TO DR. JAMES E. REEVES, OF WHEELING, W. VA.—At a meeting of the West Virginia State Board of Health, held on the 13th inst., the following preamble and resolutions were adopted:

"*Whereas*, This Board has received many very high compliments from distinguished sources for the manner in which it has performed its difficult labors—notably, for its efforts to elevate the standard of medical education in West Virginia; and,

"*Whereas*, It is always just and proper to acknowledge credit to whom credit is due; therefore,

"*Resolved*, That this Board is fully sensible of the eminent services of its secretary, Dr. James E. Reeves, to whom belongs, in the main, the credit of directing its successful labors, and in all things upholding its good name, by his faithful energies and labors alike for the State and the medical profession."

The Board also adopted, unanimously, resolutions urging upon Congress the importance of continuing and furthering the work of the National Board of Health.

MEDICAL EDUCATION IN PHILADELPHIA.—*The Continent* for January 17, 1883, contains an interesting historical sketch of the progress of medical education in Philadelphia.

FLORIDA AS A HEALTH RESORT.—DR. R. J. LEVIS contributes an article to the current number of *The Continent*, on the Gulf Coast of Florida, in which he points out its advantages as a health resort, particularly for subjects of pulmonary disease.

DR. DUHRING'S WORK ON DISEASES OF THE SKIN.—A very laudatory review of the French translation of Dr. Duhring's treatise on diseases of the skin has just appeared in the *Annales de Dermatologie et de Syphilographie* for December 25, 1882.

PREVENTIVE VACCINATION IN CHARBON.—At the meeting of the French Academy of Sciences held Dec. 18, 1882, M. PASTEUR read a paper giving the results accomplished during the past year in the department of the Eure-et-Loir by the farmers who have practically applied his method of inoculating live stock as a preventive of disease. The number of sheep vaccinated within the year has been 79,392. For the last ten years the average annual loss from liver-rot has been 7,327, or 9.41 per cent. Since the introduction of vaccination this loss has been reduced to 518, or 0.65 per cent. Among the flocks which have been only partially vaccinated, there were 2,308 sheep vaccinated and 1,659 not, and the loss among these was only eight for the 2,308 vaccinated sheep, or 0.4 per cent., while it was sixty among the 1,659 unvaccinated sheep—3.9 per cent. It is worthy of note that these sheep were brought from different parts of the department, and that the vaccinated and unvaccinated ones were all fed and treated in the same way, and subjected to absolutely identical influences. The veterinarians of the Eure-et-Loir have vaccinated during the year 4,562 head of cattle, and there have been only eleven deaths, the rate of mortality being thus reduced from 7.03 per cent., at which it stood a year ago, to 0.24 per cent. Horses were not vaccinated to so general an extent as cattle and sheep, on account of the swellings which follow vaccination in these animals; but of the 524 so treated only three died. M. Pasteur emphasizes the importance of these results, and adds that in the last six weeks 13,000 sheep, 3,500 cattle, and 20 horses have been vaccinated, without a single accident having occurred in these 16,520 animals.—*Gaz. Méd. de Paris*, Dec. 30, 1882.

ADULTERATION OF QUININE IN PARIS.—M. LABORDE stated, at the Société de Biologie (*Gaz. des Hôp.*, December 19th), that the quinine used in the Paris hospitals contains sometimes as much as forty-three per cent. of cinchonine, and that the two substances differ much in their actions. He has proved this by experiments of injecting both substances hypodermically in guinea-pigs, when death is produced much more rapidly by the adulterated than by pure quinine. Some *pharmaciens*, he observes, under the mistaken idea that the action of both substances is alike, substitute, either partly or wholly, cinchonine for quinine. This is very important to be known, especially in typhoid fever, which predisposes to some of the accidents resembling those produced experimentally by cinchonine.—*Med. Times and Gaz.*, Dec. 30, 1882.

PROCEEDINGS OF THE ILLINOIS STATE BOARD OF HEALTH.—The annual meeting of the Illinois State Board of Health was held January 11, 1883. Dr. Rauch presented the quarterly report of the secretary, from which we make the following extracts:

Smallpox.—With the advent of cold weather a few scattering cases of smallpox have appeared in the State, but without creating excitement or manifesting any tendency to become epidemic. At three points in Cook County, and in Aurora, Kane County, the infection is attributed to Chicago. At Marshall, in Clark County, the disease was brought from Cincinnati, and at Cambridge, in Henry County, it was brought from Pennsylvania. So far as the history of these cases has been ascertained, it is found that the victims were, in every instance, either unvaccinated or not vaccinated since infancy or childhood.

There have been no cases among immigrants during the quarter—none, in fact, since the single case in the early part of June last, soon after the sanitary inspection of immigrants was begun. Strenuous efforts have been made to secure the continuance of these inspections, or, at least, their prompt resumption at the opening of the immigrant season. The secretary thinks it is demonstrated—from the history of smallpox in Chicago during the past thirty-two years; from the consensus of statements of leading health officials concerning the origin and spread of the recent epidemic; and from the results of the operations of the Immigrant-inspection Service—

1. That the immigrant is a prime factor in the origin and continuance of smallpox in the United States.

2. That State and local boards of health, acting independently, cannot suppress the disease, when once introduced, so long as the influx of unprotected immigrants continues.

3. That the immigrant-inspection system, in addition to furnishing a practical mode of coöperation by the various State and local boards of health, has proved entirely adequate to remedying the defects arising from want of international quarantine laws and of uniformity in the administration of our own maritime and boundary quarantines.

Immigrant-inspection Service.—My final report to the Secretary of the National Board of Health, in which are summarized the operations of the Service in the Western district during the season, shows that a total of 115,057 immigrants were inspected in the district during June 1 and December 31, 1882. Of this number, 57,302 were found to have been satisfactorily vaccinated before sailing or during the voyage, and 3,127

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were found to have had smallpox—making about 53 per cent. of the total number protected. There were 28,408 of the remainder vaccinated or revaccinated after arrival and before reaching this district; and 21,618 similarly treated by the Western inspectors, leaving 4,602 unaccounted for, including those whom it was deemed inadvisable to vaccinate.

At the close of August, I made a table of the results obtained up to that time. There had then been an aggregate of 63,962 persons inspected, of whom it was found that 54 per cent. were imperfectly or entirely unprotected against smallpox on arrival, and that only 22 per cent. were vaccinated on shipboard. These figures have been changed by the pressure and influence of the Inspection Service upon the steamship companies and their surgeons, so that, for the whole season, the percentage of "susceptible" was reduced to 47, while the proportion of ship-vaccinations was increased to 29, in the hundred.

This latter figure (29 per cent.) represents an actual increase of fully 42,000 vaccinations secured on shipboard by this means, during the latter, as compared with the first half of the season; and indicates the increasing value, efficiency, and influence of the Service, both directly and indirectly, at the time when its operations were suspended.

Prior to the preliminary steps taken to secure this Service (including the notification of Dr. Smith, Health Officer of the port of New York, to the steamship companies last spring), vaccinations on shipboard—except in rare instances—were confined to the occasions of the actual appearance of smallpox cases on board. So that, as a matter of fact, an aggregate of about 174,000 vaccinations on shipboard have been obtained among the arrivals at all ports, simply as a result of the existence of the Service, and independently of those performed by the inspectors after arrival.

Medical Education.—The exposure of the Boston Bellevue Medical College, and its consequent disruption, of which the members have already been advised, have been followed by some unlooked-for developments. As a result of the correspondence carried on from this office, the most convincing proof was secured that the so-called "college" sold diplomas and degrees to individuals grossly ignorant of any medical knowledge, and either with or without attendance upon its alleged course of instruction. Its officers were arrested for using the United States mails for fraudulent purposes, and, on trial, admitted all that was charged against them, except violation of the postal laws. To this charge they pleaded that they were legally incorporated, and were empowered by the laws of Massachusetts to issue diplomas and confer degrees without any restriction as to course of study or professional attainments. The United States Commissioner held the plea to be valid, and dismissed the case with the following remarks:

"The State has authorized this college to issue degrees, and it has been done according to legal right. . . . The law makes the faculty of the college the sole judges of eligibility of applicants for diplomas. There is no legal restriction, no legal requirement. *If the faculty choose to issue degrees to incompetent persons, the laws of Massachusetts authorize it.* This is, therefore, not a scheme to defraud under the statute. The defendants are dismissed."

Since this decision was rendered, that is, within a fortnight, the "American University of Boston," president, Dr. Buchanan (familiar name in this connection), and the "First Medical College of the American Health Society," located at Boston, have been incorporated, and Dr. Alfred Booth, the first president and one of the incorporators of the "Boston Bellevue," has given notice of his intention to start the "Excelsior Medical College."

Thirty-one individuals have been detected in falsely swearing to be graduates of foreign universities, their pretensions exposed, and the impostors driven from the State through the Act to Regulate the Practice of Medicine.

School Vaccination.—The school population of Illinois is now quite well protected against smallpox.

National Board of Health.—The following preamble and resolution were unanimously adopted:

Whereas, The Act of Congress, appoved June 2, 1879, by which the National Board of Health is charged with the duty of coöperating with and aiding State and local boards of health in the enforcement of their rules and regulations to prevent the introduction of contagious and infectious diseases into the United States, and into one State from another, will expire by limitation on the 1st of June, proximo; and

Whereas, The said National Board of Health has discharged this duty with so much of success, honesty of purpose and regard to economy, as to conclusively demonstrate the value of a national agency for the protection of the public health; therefore, be it

Resolved, That the Illinois State Board of Health earnestly urges upon the Senators and Representatives from this State to obtain, during the present session, the legislation necessary to secure an extension of said act, pending the creation of a permanent national health organization—such legislation to include a provision whereby the unexpended balances of the original appropriations may be reappropriated and made immediately available for the purposes of said Act.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending January 13, 1883, indicate that diphtheria, neuralgia, rheumatism, and scarlet fever have increased, and that consumption has considerably decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending January 13, and since, at 21 places, scarlet fever at 17 places, and measles at 14 places. Smallpox was reported at Detroit, January 13.

OBITUARY RECORD.—In New York, on the 23d inst., GEORGE M. BEARD, M.D., aged 43 years. Dr. Beard was born in Montville, Conn.; he received his classical education at Yale, and graduated in medicine at the College of Physicians and Surgeons, New York, in 1866. He was one of the originators of the National Association for the Protection of the Insane and the Prevention of Insanity, and was a frequent contributor to the literature of the diseases of the mind and nervous system. His death is said to have been due to pneumonia. He leaves a wife and daughter.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 15 TO JANUARY 22, 1883.

SPENCER, WILLIAM G., *Captain and Assistant Surgeon.*—The leave of absence on surgeon's certificate of disability, granted September 20, 1882, is extended three months on surgeon's certificate of disability.—*Par. 4, S. O. 16, A. G. O., Jan.* 19, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

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ORIGINAL LECTURES.

ON INTRA-LARYNGEAL GROWTHS.

A Clinical Lecture.

BY CLINTON WAGNER, M.D.,

PROFESSOR OF DISEASES OF THE NOSE AND THROAT, NEW YORK POST-GRADUATE MEDICAL SCHOOL; SURGEON-IN-CHIEF TO THE METROPOLITAN THROAT HOSPITAL.

GENTLEMEN: In the pre-laryngoscopic period the presence of laryngeal growths was rarely recognized, owing to the want of means of making an accurate diagnosis. The first case of which we have any record is that of Koderik, in 1759. Brauers, Ryland, Ehrman, Rokitansky, and Horace Green have all published reports of cases before the introduction of the laryngoscope into general practice. But the most interesting of the several treatises are those of Ehrman, in 1850, who published a record of all the well-authenticated cases, twenty-six in number, all of which proved fatal except three. In 1859, Dr. Horace Green, of New York, in an able monograph, gives the entire number of recorded cases as forty; thirty-seven of which resulted fatally. Seven or eight of this number occurred in this country; four in his own practice.

The symptoms show themselves in an alteration of voice, or disturbance of the function of respiration, the act of swallowing, and in some cases cough and pain.

The alteration of the voice may range from slight huskiness to complete aphonia. It will depend upon the size of the growth and its location. If sessile and upon the superior surface of the cord, the voice may undergo no change whatever. If it is attached to the free edge, or overlaps the free edge of either of the cords sufficiently to prevent approximation, there will be complete aphonia. If attached by a pedicle to the under surface of the cord, it may produce aphonia by being thrown upwards and between the cords during phonation or attempted phonation, approximation will be interfered with, and no voice will be produced. The voice sometimes has a peculiar vibratory tone or metallic ring which the ear of the skilled laryngoscopist may frequently detect at once and suspect the presence of a growth, even before making the examination with the mirror. If the growth is in either of the ventricles of the larynx or attached to the ventricular bands, voice may not be interfered with.

Breathing is interfered with in those cases in which the growth has attained sufficient size to lessen materially the calibre of the larynx. The location of the growth may have much to do with the disturbance of respiration. If in the upper part of the larynx on or above the ventricular bands, it is less apt to produce dyspnœa than if lower down and in the glottis proper. A growth which does not ordinarily produce much distress in breathing may seriously impair it if the patient should catch cold, producing congestion of the mucous membrane to any extent. Inspiration is more labored than expiration. If the growth is attached to either of the cords, the respiration is very stridulous and attacks of spasm of the glottis more or less frequent.

The act of swallowing is interfered with should the growth be of large size and attached to the epiglottis or to the posterior wall of the larynx, or overhanging or adjacent to the pharynx.

Cough is not always present, and when it is the growth will probably be found attached by a pedicle and interfering with the movements of the glottis.

Pain is rarely present, and when felt, the growth is usually of malignant character.

A succession of colds which keep up a chronic congestion of the mucous membrane—chronic laryngeal catarrh—is one of the most common causes. Syphilis and tuberculosis have no agency in the production of new formations in the larynx. The professional use, or rather the abuse, of the voice may be assigned as a cause of laryngeal polypi. Persons between the ages of 35 and 50 are most prone to new formations in the larynx. They are sometimes congenital. Dr. Eddis reports a case of an infant that died thirty-seven hours after birth from strangulation produced by a laryngeal polypus. Dr. Causit thinks they are most frequent in infancy, while Dr. Bruns reports a case occurring in a subject seventy-four years old. In my own practice, my youngest case was a boy five years old, from whom I removed a large papilloma; my oldest case, a man sixty-three.

Varieties of growth: benign and malignant.

Benign: papillomata, fibromata, myxomata, cystomata, lipomata, angiomata.

Malignant: sarcomata, epitheliomata.

Papillomata are most frequently met with of the several forms of laryngeal polypi or growths. They are generally multiple, and vary in color from a whitish-pink to a deep red. If thoroughly removed, they are not apt to recur. Sometimes a mere crushing with the forceps will suffice to produce a sloughing or disintegration of what remains. It is claimed that this variety may recur or reappear as a malignant variety if not thoroughly removed. I have had several cases in my own practice which somewhat support this theory. A case whom you have all seen at the Metropolitan Throat Hospital, first came to me in January, 1881, nearly two years ago. At that time there was a growth about the size of a large pea on the right cord, near the anterior commissure. I regarded it as a papilloma, and suggested the removal by the forceps, which could have been done at that time without difficulty. The patient declined, and sought treatment elsewhere. Twelve months later he again consulted me, at which time the whole box of the larynx was almost completely filled with growth. Several large pieces were removed by means of the forceps, but as the growth was found to extend downwards below the cricoid cartilage, and as dyspnœa was becoming more urgent each day, tracheotomy and thyrotomy were performed, the growth removed, and the patient discharged in a few weeks from the hospital. The tumor was submitted to Dr. Heitzman, of this city, for examination, who pronounced it a benign growth of the variety known as papilloma. But in his report he stated that it had grown from a highly inflamed base, and if it recurred it would most likely come as a malignant growth. A few months later, in June, just before I left for Europe, the patient came to me, suffering from great dyspnœa. A large amount of growth had reappeared in the larynx, on the right side. During my absence a canula was introduced into his trachea by a surgeon in Brooklyn; and upon my return I again operated. This time I removed an enormous amount of growth. It involved the whole of the right side of the larynx, and extended below the cricoid cartilage. I found it necessary to remove also several portions of the thyroid cartilage, in order to

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secure thorough extirpation of the growth. Its attachments were destroyed by the galvano-cautery. A portion of the tumor which was submitted to Dr. Heitzman for microscopic examination, was pronounced to be epithelioma; thus supporting the theory that a perfectly benign growth may degenerate into a malignant variety, and also confirming the opinion of the microscopist in this particular case, that if a recurrence took place, it would come in a malignant form. Fourteen weeks have now passed since my last operation, and not the slightest trace of the growth can be seen. It is to be hoped, for the patient's sake, that my friend Dr. Heitzman has committed an error in his diagnosis of the tumor. I might add another interesting feature of this case; ossification of the thyroid had taken place, and also of the right arytenoid. In performing the first operation, in using the curette upon the anterior surface of the right arytenoid, I probably destroyed the mucous membrane over the arytenoid by the force it was necessary to use, and also dislocated it from its cricoid attachment. Sloughing must have supervened, for about three weeks after the operation, during a severe fit of coughing, the right arytenoid, completely ossified, was expelled through the mouth. The specimen which I exhibit to you is that of the ossified arytenoid.

The specimen which I exhibit to you in this bottle is a papilloma removed from a child five years of age. The little fellow was admitted into the Metropolitan Throat Hospital about four and a half years ago. He was suffering from alarming dyspnœa, with frequent attacks of spasm of the glottis. An examination revealed a large papilloma attached to the right cord and almost completely filling the box of the larynx, and between the cords posteriorly could be distinctly seen what appeared to be a web of membrane stretched from cord to cord. The child was much reduced in flesh and strength, and thyrotomy was at once decided upon. Tracheotomy was first performed, and immediately afterwards thyrotomy. This growth was removed, the false membrane cut away with the scissors, and the patient put to bed, The membrane was probably the result of an attack of croup which he had had some time before. The boy recovered perfectly and gained rapidly in strength and flesh, and was discharged five weeks after the operation. I saw him some two years later; he was in perfect health and there had been no recurrence of the growth.

Fibromata are the next in frequency. We have the hard and soft variety, the former the most common. Their growth is very slow. They are usually attached by a pedicle, and arise from the submucous cellular tissue or perichondrium.

The specimen which I exhibit to you was removed from a stout, muscular man, aged thirty-six, by occupation a butcher. This growth was attached by a pedicle to the under surface of the right cord at about its junction with the middle and anterior thirds. During quiet breathing, the tumor would drop below the cords and almost disappear from view, but during the act of phonation it was forced upwards and lay upon the surface of the cords or between them. I made several unsuccessful efforts to seize this tumor during quiet respiration. Finally I directed him to make the "ah" sound loudly and forcibly, during which I rapidly introduced the forceps, and caught and severed the entire growth.

The specimen in this bottle is a small fibroma which I removed several weeks ago from a gentleman at my office. It was attached to the free edge of the left cord at its junction with the middle and anterior thirds. His voice was a squeaking falsetto. Immediately upon removing the polypus he recovered his natural deep bass voice.

Myxomata are very rare. Very few cases are on record. Mackenzie, in his extensive practice, has not met with a single case. In the *Archives of Laryngology* for January, 1881, I reported a very interesting case occurring in my practice. The tumor was pronounced by Dr. Heitzman to be a true myxoma, a growth rarely found in the larynx,

Cystomata are of more frequent occurrence. They are usually found upon the epiglottis, sometimes upon the true cords. A cystic growth on the epiglottis which occurred at my clinic at the Metropolitan Throat Hospital, was removed without difficulty by the forceps.

Lipomata, or fatty tumors. There is but one case on record. It occurred in the practice of Dr. Bruns and grew by pedicle from the ventricle, and was of a yellowish-white color.

Angiomata, or vascular growths, are very rare. They resemble a papilloma except in color, which is black. They are very benign in character and not apt to recur if thoroughly removed.

In malignant growths (carcinoma and sarcoma) there is usually more pain, the growth is more rapid in its development, dysphagia and dyspnœa, especially the former, are more marked than in the benign varieties. In the later stages the neighboring submaxillary glands become involved, and after ulceration has taken place there is fetor of the breath, and the expectoration is mingled with a muco-purulent secretion. In the early stages of the malignant form of growth we cannot always diagnosticate them as such. If we could, the operation for removal of the larynx could be performed at a period when the chances of success would become much greater. In my lecture upon syphilis and tuberculosis of the larynx, I mentioned that it was sometimes extremely difficult to differentiate in a given case between syphilis, tuberculosis, and malignant disease of the larynx; even the most experienced may be at a loss to decide. A man called at my office for treatment during my absence in Europe in the summer of 1880, and consulted Dr. Howland, who had charge of my practice. The whole of the anterior surface of the epiglottis was covered with an angry-looking, nodulated, fungoid vegetation, On the left side near the free edge there was slight ulceration, which showed a disposition to extend. The man was fifty-three years of age and had had primary syphilis some thirty years before. The trouble was regarded by Dr. Howland as specific, and he was given iodide of potassium. The ulceration rapidly increased under this drug, which fact, together with the peculiar nodulated appearance of the growth unlike any case of tertiary syphilis that had ever come under my observation, satisfied me that the disease was malignant. I removed the epiglottis by the sub-hyoidean incision and submitted the growth to Dr. Heitzman for microscopical examination, who pronounced it cancer of the epiglottis, of the variety termed epithelioma. The disease returned, and the man died nine months after the operation. This case presents another point of interest, from its being the first operation for the removal of the entire epiglottis of which we have any record. A report of the case was published in the *Medical Record*, May 21, 1881.

Sarcomata of the larynx are not as frequently met with as epitheliomata. They resemble in appearance very much the papillomata, and vary in color from a deep red to yellow, or the pink of the mucous membrane. This specimen, which I have called sarcoma, was so pronounced by an eminent microscopist of this city. Another gentleman of equal eminence, to whom the specimen was submitted, called it a papilloma. And still another an *epithelioma-papilloma*. It began as a small sessile growth on the right cord, the greater portion of which I removed with the forceps. The patient returned to me in about six months, at which time his

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larynx presented the appearance already described. I performed tracheotomy, followed immediately by thyrotomy, and removed the growth thoroughly, applying the galvano-cautery. Two months later I was compelled to perform another thyrotomy for the removal of the tumor, which had reappeared. I proposed to him at that time to remove the entire larynx. He objected, and in all I did thyrotomy seven times. He lived two years after the performance of the first. I might add that several months before the end, he expressed a willingness to submit to the removal of the entire larynx, but at that time owing to the engorgement of the cervical glands and the extension of the disease to the trachea, the operation was not considered feasible.

Surgery has taught us that whenever a tumor or new formation interferes with the function of an organ, our duty is to remove the growth if the operation is at all practicable. If the laryngoscope had done nothing more than to enable us to diagnosticate the presence of intra-laryngeal growths, it would rank as one of the greatest of boons to modern surgery. I stated that Dr. Horace Green, in his monograph published in 1859, gave the entire number of recorded cases as forty, thirty-seven of which proved fatal. With the aid the laryngoscope has given us, there is now no reason why a case of benign growth should not be removed, and the functions of the larynx wholly restored before life has become in the slightest degree endangered. Growths may be removed by the endo-laryngeal or the extra-laryngeal method. The former consists of removal by evulsion, by cutting, or crushing. I usually employ Mackenzie's forceps, which I here exhibit to you. They are cutting and crushing, and the blades open either antero-posteriorly or laterally. There are a number of sizes, and about fourteen or fifteen forceps comprise the entire set. I wish to divest this operation (by evulsion) of the manifold risks and dangers supposed to be incurred by the patient and exaggerated by the advocates of so-called conservative surgery. It is an operation attended with little or no danger, and which any one who can introduce a brush properly into the larynx, guided by the mirror, can perform. *Preliminary training in the majority of cases is quite unnecessary.* In Vienna it is the custom, or at least it was some years ago when I was in that city, to submit the patient to training. That is, a laryngeal sound of silver or other metal neatly covered with leather was introduced into the larynx and brought into contact with the growth for many days before the professor attempted the operation. About twelve hours just preceding the operation, applications with the brush of a strong solution of morphia, alternating with chloroform, were made about every half hour. And with all this preparation, I have seen the attempt to remove the growth fail and deferred for another sitting. Bromides internally and locally are also given, and produce an anæsthesia, or rather an insensibility, of the larynx. I hold that if a brush can be introduced into the larynx, the forceps may also be.

I rarely submit the patient to any preliminary training other than introducing the mirror for from five to ten minutes for several days, provided there is irritability of the pharynx. I have frequently removed growths at the first and only introduction of the forceps. My method of introducing them is as follows: I take the largest size laryngeal mirror in my left hand, and in the right hand a pair of forceps adapted, as far as possible, to the particular case in hand. That is, as the distance from the arch of the tongue to the larynx will, of course, vary in different individuals, I employ a pair of forceps longer or shorter in relation to that distance. After introducing them into the mouth, and having the point well back of the epiglottis, I carry them as quickly as possible into the larynx. In other words, I try to surprise the organ; that is, to anticipate the spasm which surely follows the introduction of foreign bodies. It is not always possible to watch the course of the forceps after they have entered, but you must have well in your mind's eye the exact location of the growth. If it is anterior, near the commissure, you direct your forceps to that point. If posterior, you carry your forceps to that part; and so, whether it is on the right or left cord, you give the proper direction. With a little practice—and delicacy of touch can always be acquired by practice—you will be enabled to tell whether or not you have the growth within the grasp of your forceps. Force should never be employed, as it is wholly unnecessary. The instrument is introduced closed and opened after it has reached the glottis. The larger the growth the more easily will removal be accomplished. In regard to the evil results which it is asserted are apt to follow the introduction of the forceps, such as perichondritis, necrosis of the cartilages, ulceration, paralysis, I have never met with such accidents. But I can easily understand how such consequences may be brought about. The forceps should never be introduced for more than three or four times at one sitting, and then, failing to seize the growth, the patient should be sent away, and no further attempt made for several days. A congestion of the mucous membrane may be produced, and a too frequent introduction of the forceps while in that condition may lead to unpleasant results. For that reason I recommend you to be in no haste in the treatment of these cases. I have never seen any good results follow the application of astringents or caustics to intra-laryngeal growths. I have no doubt that many of them could be dissipated by the stronger caustics, such as nitric acid, London paste, caustic potash, chromic acid, etc., but it is impossible to localize the effects of these agents, and consequently their introduction into the larynx is out of the question. The milder caustics, such as nitrate of silver, zinc, iron, or copper salts, are useless. If a patient consults you for hoarseness, and you discover a small growth upon one of his cords and you rely upon brush applications for its removal, you will surely fail. Your assurance to him that the growth will not be apt to increase in size, will not be apt to affect his general health, or interfere with his respiration, will not satisfy him. He will probably seek a surgeon who has the skill to remove it, and you, through your want of confidence in your skill, will lose the treatment of the case.

The extra-laryngeal method, thyrotomy, should never be performed except in those cases in which respiration is seriously impaired. And even in those cases where the growth almost entirely fills the box of the larynx, every effort should be made to remove it *per vias naturales*. It is a capital operation, and is always attended with more or less risk of life. The operation is easy of performance except in those cases in which ossification of the thyroid has taken place, and this usually occurs after forty-five years of age. If tracheotomy is considered necessary previous to thyrotomy in a given case, it should be followed immediately by thyrotomy, and not wait as recommended by some authorities for several weeks. You will only be subjecting your patient to the dangers incurred from two capital operations instead of one, as is the case when both are performed at the same time. Until my last operation for dividing the ossified thyroid I had always used the Hay's saw, but the operation is tedious owing to the difficulty of fixing or steadying the larynx, and it is by no means easy to keep it in the exact median line. In the case of a man upon whom I operated several weeks ago, at the Metropolitan Throat Hospital, I employed a small file-cut

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wheel made to revolve by means of the dental engine. I divided the ossified thyroid in an incredibly short space of time, the line of incision was very clean, and the superiority of this instrument over the Hay's or small metacarpal saw, upon which we have been compelled to rely, was clearly demonstrated. I have here a number of instruments; forceps of various kinds, cutting and crushing; as well as a guillotine or circular knife, such as are employed by the throat specialists in Vienna. I consider them inferior in every way to those of Mackenzie, and for that reason I never employ them in my operations. Prof. Rossbach, of Würtzburg, has suggested an operation which consists of introducing a sharp-pointed narrow knife through the median line of the thyroid into the larynx, and then by aid of the mirror introduced into the patient's mouth any growth which may be upon the vocal cords is to be cut off. This operation has been described as a simple one attended with no hemorrhage, and we are told that the patient is unconscious of the presence of the knife in the larynx, and neither retching nor coughing is liable to be excited. If the patient is unconscious of the presence of the knife, the larynx certainly will not be. You will surely have spasm of the glottis, and more or less hemorrhage; it will be utterly impossible to hold the mirror *in situ* from the retching which will be produced; and, in addition to all this, if the knife is permitted to remain in the larynx during the spasm, I can readily conceive that the posterior wall of the larynx and the anterior wall of the pharynx may be cut through. I have never attempted this operation, and never shall, as I consider it wholly impracticable.

ORIGINAL ARTICLES.

NOTE ON A CASE OF ECZEMA OF THE FACE IN AN INFANT.

BY CHARLES W. DULLES, M.D.,
SURGICAL REGISTRAR TO THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

ABOUT a year ago, H. G., an infant, eight months old, fat, but white looking, was brought to me suffering with eczema of the face, having a large patch on each cheek, and one on the chin. The disease was of the papulo-squamous type, the surface being rough, somewhat elevated in spots, and of a red or brownish-red tinge, according to the temperature of the air. It had now lasted some months, and the child's parents had little hope of having a cure effected. With this in view, I gave a guarded prognosis, and tried my hand at the little boy. I worked away from March 2 to April 28—nearly two months—with diluted iodine ointment, zinc ointment, white precipitate ointment, cod-liver oil and calomel and zinc ointment mixed, locally; and internally, with castor oil and rhubarb, till I had the bowels in fine condition. But all accomplished only temporary and trifling results. At this juncture, one day, with the child before me, it occurred to me to try the effect of removing the cuticle and stimulating the deeper layers of the skin with the tincture of iodine. I at once put this idea into execution, making, on April 28, a limited experiment on the chin, to begin with. This worked well, and I then, on May 8, tried it on the chin and one cheek. These both did well, and on May 26 I painted all three places with equally happy effect. After each application of the iodine desquamation occurred, and the improvement was marked. By June 5 the face was cured, and there has been no recurrence of the disorder in the six months which have since elapsed.

I have been led to narrate this case because I find, on inquiry of some of my friends who are specialists in dermatology, that the line of treatment last employed, which was novel to me, is also novel to them. I am told that a similar method is not uncommonly followed in obstinate, long-established, and indurated eczemas of adults, but that it has not been recognized as applicable to eczemas in very young persons.

It certainly worked admirably in the present case, getting rid of the red, dry, rough and scaly patches on both cheeks and chin, which had been of the most disfiguring character. And when next I encounter like conditions, I shall not postpone having recourse to it till after I have tried the methods usually recommended, but use it at first.

One of my friends, an experienced specialist, to whom I spoke of the treatment while I was employing it, said he would hesitate to use the tincture of iodine undiluted on the face of an infant, for fear it would prove too irritating. This fear, however, was not realized in my case. The remedy did no harm, was easy to apply, required no change of dressings or trouble on the part of the mother, and it was followed by a prompt and permanent cure.

THE REACTION OF DEGENERATION.

BY G. BETTON MASSEY, M.D.,
ELECTRO-THERAPEUTIST AND ASSISTANT PHYSICIAN TO THE PHILADELPHIA ORTHOPÆDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES.

THE value of electricity as an aid in the differential diagnosis of various forms of paralysis is quite considerable, and is largely owing to recent investigations into the behavior of muscular tissue under the influence of the poles of a galvanic battery. Under certain well-determined conditions a variation in this response is clearly and readily found, and points unerringly to a change that can have no higher seat than the trophic centre of the affected muscle, thus immediately excluding all possibility of a cerebral origin of the malady, and, as we shall see directly, being of still further aid in narrowing down our inquiry into the probable seat of the paralysis.

This "reaction of degeneration" of muscular tissue to galvanism was first observed by Brenner, and afterwards by Erb, the latter making quite an elaborate study of the subject, and first suggesting the name by which it is now known.

During several years past I have been much interested in an attempt to verify these statements of Prof. Erb in the abundance of material to be found at the electric clinics of the Infirmary. The result has been a complete confirmation of the existence of the reaction, and of its claims upon the attention of the profession.

In obtaining this reaction a reasonable amount of dexterity and circumspection is necessary, but its

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recognition is by no means sufficiently difficult to deter the most inexperienced manipulator from the attempt. The hazy description of the phenemenon by the specialists who have mentioned it, is, therefore, much matter for wonder.

In this article nothing will be said of the action of the faradic current; it is also assumed that the reader will understand that the galvanic current is only to be taken into consideration at the opening and closing of the circuit, as it is then only, under ordinary circumstances, that any contraction of muscle occurs.

First, it is to be clearly understood that the reaction of nerve trunks and of muscular tissue should be sharply distinguished. Quantitative changes of excitability (increase or diminution of the response without change of the normal formula given below) occur alike in nerves and muscles, but it is in muscles only that these peculiar changes of a qualitative character occur; and it is because we cannot eliminate the intra-muscular nerve twigs from a participation in the polarity induced in the surrounding muscular tissue by the superimposed pole that we sometimes find it difficult to detect the slighter degrees of qualitative change—the true behavior of the muscle being masked, as it were, by the greater excitability of the nervous tissue. To thus confine the influence of the pole whose action we wish to test to the tissue of the muscle chiefly, it is evident that some attention should be paid to topographical anatomy. Similar considerations should also guide us in selecting a position for the opposite, indifferent, pole. It is usually recommended by those who have written on the subject to place the indifferent pole on the sternum; this, however, is unwise beyond the fact of its rather painful character, as contractions of most of the muscles of the limb are apt to be produced by the current in its course from the chest towards the opposite pole. Experience has suggested to the writer that it is far better to select a contiguous tendinous or bony spot as the position of the indifferent pole. In the examination of the tibialis anticus muscle, for instance, the patella forms a good point of departure, as also for the quadriceps extensor. Some attention to the point of departure is absolutely essential to a correct examination.

Having placed one well-moistened electrode over the muscle to be tested, and the other in some carefully selected point of departure, it next becomes necessary to properly close and open the circuit. For this purpose nothing is in any way comparable to a pedal rheotome, a simple mechanism worked by the foot; it is, in fact, a necessity whenever the services of an assistant cannot be obtained, as a steady application of the electrodes is essential in many delicate cases—even the slightest movement produced by the working of the hand-current-breaker being confusing. If the pedal rheotome also contains a commutator, worked by the foot, for changing the poles while still *in situ*, its handiness will be greatly increased. The clockwork current-breakers usually furnished by instrument makers are totally unfit for diagnostic purposes, since the current should be completely under the control of the operator.

The normal reaction of the galvanic current in muscle is as follows: With a medium strength of current (15 to 20 sulpho-chromic cells, or 25 to 35 bluestone cells, in accordance with the temporary condition of the battery), there is a decided contraction at the closure of the circuit with the kathode, or negative pole, on the muscle. On changing the poles by means of the commutator, thus bringing the anode, or positive pole, over the muscle, we obtain a slight contraction at the closure. There are no contractions at the opening of the circuit with either pole. In other words, the normal condition presents a stronger kathodal closing contraction and a weaker anodal closing contraction. This, simply stated, is the key to the whole matter; but, simple and easily verified as it is, it yet has been more than once overlooked or misinterpreted by electro-therapeutists. Erb[1] states that with an intermediate grade of current the kathode causes a strong contraction on closure, but none on opening the circuit. "The anode, on the other hand, causes feeble contraction, both when the current is closed and when it is opened, the degree of contraction being nearly the same in both cases, though sometimes the one and sometimes the other may be somewhat the stronger, or may show itself more promptly." Whether the muscular tissue of an American, under the stimulus of anelectrotonus, acts differently from the Teutonic fibre or not I cannot say; but I am certain that not even our German-American citizens present that sort of anodal response. I can only explain his statement by the supposition that he paid but little attention to the point of departure. Dr. Bartholow[2] has fallen into even a more serious error when he states that the anode causes contractions chiefly on opening the circuit. If he had but tested the thenar eminence of his left hand, a moment would have sufficed to show him his error. The mistaken estimate of the action of the anode by both authors is really unaccountable, as it is clearly evident to any experimenter that the anodal closing contraction is much stronger always than the anodal opening contraction—in fact, that it is obtained usually by a strength of current that will show no motion whatever at the opening.

To repeat: with a medium current we obtain good kathodal closing contraction, slight anodal closing contraction, and no motion whatever at either kathodal opening or anodal opening.

The great strength of current required to bring the opening contractions in health makes the operation a painful one, and is apt to precipitate volitional interference with the electro-motility; but, to make the statement complete, it may be added that in increasing the current strength to the point of giving great pain, it is said that we may obtain an anodal opening contraction, and with a still higher strength, kathodal opening contraction.

Now the "Reaction of Degeneration" consists

[1] Ziemssen's Cyclop., vol. xi. p. 273.
[2] Bartholow's Medical Electricity, p. 117.

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merely in a more or less perfect reversal of the above formula. The anodal closure then causes a stronger contraction than the kathodal closure. This is readily demonstrated in all typical cases. A less degree of degeneration may be present, however, and shown in but a slight increase of anodal closing over kathodal closing contraction. A still less degree may be present and indicated by an equality of the two closing contractions, and yet this would still be an unerring sign of the presence of the qualitative change in question.

In recording the notes of cases at the Infirmary, it has been found very convenient to use the formula recommended by Erb, which consists in the use of the initials of the German words employed to describe the reaction. Thus the formula of the normal reaction, kathodal closure: stronger contraction, anodal closure: weaker contraction, may be recorded by the letters Ka.S.Z.; An.Sz.; Ka. and An. representing kathode and anode respectively, S. representing *Schliessung*, closure, and Z. *Zuckung*, contraction. The relative strength of the contraction is best represented by a large or small Z. Other symbols that may possibly be needed are, O., *Oeffnung*, opening of circuit, and Te., *Tetany*, or prolonged contraction. There are at least two good reasons why the initials of the German words should be retained in English formulas rather than the translated initials, viz., the necessity we would be under to assign different meanings to the same letter in the translation; and, secondly, the established usage of the German formula in European scientific works, including some British authors.

It has been found by Erb that this change in the response of the muscle to galvanism is accompanied by, and coincident with, a change in the nutrition of the muscular elements themselves. After section of a motor or mixed nerve, an atrophy of the muscular fibres immediately sets in. It may be seen during the course of the second week. It consists in a narrowing of the fibres, which may possibly reduce them to one-half their width in five or six weeks. The transverse striæ become less distinct, there is a notable increase in the muscle nuclei, and it is even said that a chemical change may be demonstrated in the contractile substance. It is at this time (from two to six weeks after the paralysis) that the reaction of degeneration may be found at its height. It is accompanied by an absolute quantitative increase of galvanic response, and total absence of farado-contractility. From this time on the degenerative response lessens in amount and distinctness, in accordance with the relative increase of connective tissue, until finally the trophic control is reëstablished over the part, with a gradually returning normal reaction; or, in hopeless cases, a sclerotic atrophy, representing the débris of muscle, presents a final and permanent obstacle to any and all forms of motility. Thus the difficulty at times experienced in obtaining the degenerative response in cases where it should be found may be due to the lateness of the stage of paralysis at the time of examination. In such cases an earlier examination would have undoubtedly disclosed the change.

As to the diagnostic value of this sign, we have already some positive data. It is to be found in all cases of traumatic paralysis depending on injuries to nerve trunks. In fact, all peripheral paralyses of nerves due to neuritis, or other lesions acting upon nerves after their exit from the brain or spinal cord, such as compression by tumors, extravasation of blood, etc., will show the abnormal response in the early stages. Of this class may be mentioned facial paralysis, the various artisans' palsies, and local spasms due to neuritis from over-use, such as scrivener's palsy or cramp, telegrapher's palsy or cramp, seamstresses' palsy, pianist's palsy, etc., together with the worst forms of paralysis from compression, as, for instance, the musculo-spiral paralysis not infrequently contracted by drunkards while sleeping with the head resting on the arm. It occurs also in lead palsy, and in infantile paralysis.

With the exception of the last-mentioned two affections, all examples of its presence are strictly confined to diseases in which considerable anatomical changes exist in the nerves. In reference to the exceptions—lead paralysis and infantile spinal paralysis (*i. e.*, polio-myelitis anterior acuta of either children or adults) it may be mentioned that they consist essentially of disease of both the gray matter of the cord and of the muscles themselves—the relative importance of which is still under discussion among pathologists—and are accompanied by great trophic disturbance. With these exceptions, therefore, the occurrence of the reaction of degeneration points most positively to a peripheral disease of the nerve trunks, or of the conductors of trophic influence within the cord, and excludes the possibility of brain disease, thus, in most cases, having important bearings upon our prognosis.

In view of the above facts, together with the statement that the reaction is normal in progressive muscular atrophy as long as any muscular tissue is left, I would suggest that the true explanation of the phenomenon is closely connected with a study of the conductors of trophic influence and the effect of interference with or abolition of their functions as conductors.

Some practical hints bearing upon treatment are the following: In all cases of paralysis of motility showing this qualitative change there is more or less total loss of response to faradism. Galvanism should therefore be preferred to faradism as a therapeutic agent. Since also the anode or positive pole becomes the most active, it should be given the choice of position in applications to the muscles.

1632 ARCH STREET.

HOSPITAL NOTES.

BOSTON CITY HOSPITAL.

(Service of W. C. B. FIFIELD, M.D.)

FRACTURE OF THE OS CALCIS OF EACH FOOT; DEATH FROM EMBOLISM ON THE TWELFTH DAY; AUTOPSY.

(Reported by ROYAL WHITMAN, M.D., House Surgeon.)

THE patient, a robust German, was brought to the hospital September 19, 1882. While being drawn up a shaft in a bucket, the rope broke, and he fell a distance of about eighteen feet, striking upon his feet.

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Examination showed the following injuries: Several incised wounds of the face. Upon the inner aspect of the right ankle, immediately below the malleolus, was an incised wound about two inches in length. Upon the introduction of the finger, a compound, comminuted fracture of the inner aspect of the os calcis, immediately below the articulation with the astragalus, was detected, the cancellous structure of the bone being exposed, but not injured to any extent. Several small fragments of bone were removed, and the wound was dressed with carbolized gauze.

The left ankle and lower leg were swollen, discolored, and tender on pressure. There was indistinct crepitus about the ankle, and apparently a slight outward displacement of the foot. No change in the contour of the heel was discovered, and a positive diagnosis as to the position of the fracture was not made, though it was thought to be a fracture of the outer malleolus. The leg was placed in a fracture-box, and hot fomentations applied to the ankle.

During the following week the patient progressed favorably. The swelling about the left ankle persisted, and several blebs formed upon the leg. There was a slight amount of suppuration about the compound fracture of the right foot, but no pain or swelling. On the afternoon of October 20, the swelling of the left ankle having subsided, a roller plaster bandage was applied.

In about one-half hour after its application the house surgeon was called, and found the patient in a state of extreme cyanosis, pulse rapid, feeble and irregular, expression anxious, face covered with cold perspiration, respiration sixty to the minute, and gasping in character. The patient complained of great pain in the cardiac region, and said that he was dying. Air entered the lungs freely. The foot of the bed was raised and subcutaneous injections of brandy and ether were given, but without effect. The patient rapidly grew worse, and died in about fifteen minutes after the first symptom.

Autopsy (eighteen hours after death).—There was a fracture of the inner aspect of the right os calcis, as has been described, an area about three-fourths of an inch in diameter of the cancellous structure of the bone being exposed. No injury of the neighboring bones or soft parts.

The left foot was then examined, and the os calcis was found to be completely smashed. The superior surface, articulating with the astragalus, was firmly impacted into the surface to which the tendo Achillis is attached. This portion of the bone was also fractured in various directions, though the fragments were not separated. The remainder of the bone was broken into several fragments. The surrounding soft parts were considerably lacerated and the adjacent veins filled with thrombi. No other bones of the foot or leg were injured.

The lungs were then examined and the main pulmonary arteries were found to be almost completely occluded by thrombi.

REMARKS.—Fracture of the os calcis of both feet is an extremely rare accident; but two cases of it having been reported—one by Malgaigne, and the other by Voillemier.

Malgaigne speaks of the difficulty in making a diagnosis of the injury, and says that it is most often mistaken for fracture of the fibula on account of the pain and swelling about the ankle. Recovery is usually slow, and considerable disability often results.

Embolism, as a cause of death in fractures, is not mentioned in the prominent works on surgery. The only mention of this complication that I am able to find is as follows:

"Azam, of Bordeaux, first wrote upon this subject in 1865. He has demonstrated that thrombosis, which may also accompany a great variety of injuries and inflammatory diseases of the limbs, is particularly liable to occur about fractures of the leg. The intimate relations which exist between the bones and the tibial and peroneal veins explain the frequency of its occurrence. Embolism, the results of which are so serious, is a consequence of thrombosis, and is of much more common occurrence than is generally believed. In all ages, surgeons have noticed cases of sudden death, most frequently occurring after fractures of the lower leg. They have explained these deaths by pretended serous or nervous apoplexies, convenient and pompous explanations, but devoid of sense; and had Azam done nothing more than to demonstrate in a single case the stupidity of such explanations, he would have accomplished something, for the discovery of a positive fact is never in vain, but always of practical importance."—*Noveau dictionnaire de Medecine et de chirurgie.*

MEDICAL PROGRESS.

LIGATURE OF THE BROAD LIGAMENTS AS A SUBSTITUTE FOR CASTRATION IN CASES OF UTERINE FIBROMYOMA.—DR. GIOVANI COSENTINA reports the case of a married women aged 36, with an interstitial fibroid tumor of the uterus, who suffered from an almost continuous uterine hemorrhage, and in whom all the ordinary remedies had been tried without success. The case seemed to be a suitable one for the removal of the ovaries, the operation for which was decided upon, and even commenced. From the difficulty in detaching the ovaries, which were adherent to the uterine walls, and with the idea that perhaps the hemorrhage might be caused by the immense congestion of the veins of the ligament, the right broad ligament and Fallopian tube were ligated. The wound in the abdomen healed readily, and the woman was discharged. Two months later she returned, and it was found that the tumor had greatly reduced in size, and the hemorrhages had diminished in frequency and severity.—*Journ. de Méd. de Paris*, December 23, 1882.

THE MICRO-ORGANISM OF WHOOPING-COUGH.—DR. CARL BURGER describes an organism which he has found in the sputa of patients with whooping-cough, which are so constant in their appearance in this disease, while never to be seen under other circumstances, that he believes there must be some etiological reason for their presence, particularly since the intensity of the disease depends upon the number of the organisms present. He has not yet reported the results of the culture-experiments with which he is at present occupied.

These organisms are readily detected by simple staining with watery aniline solutions, and may be prepared in the same manner as employed by Koch in the case of the bacillus tuberculosis. Dr. Burger describes them as ovoidal rods, about twice as long as broad, with a slight constriction around their middle; occasionally they are met with in chains and groups, and by their difference in size and shape can be readily distinguished from the spores of *Leptothrix buccalis*.—*Berliner klin. Woch.*, January 1, 1883.

REMOVAL OF GOITRE.—In the *Deutsche Medizin. Zeitung*, No. 42, an abstract of a case of extirpation of a goître, performed by Von Riedel, is given, which is unusual in the fact that symptoms supposed to be due to some affection of the vagus occurred soon after the operation. Aphonia, with rapid pulse and dyspnœa, set in within two hours after the operation.

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Tracheotomy failed to relieve the dyspnœa. Four days later, pneumonia was detected, and the patient succumbed. At the autopsy the recurrent nerves were found to be embedded in blood-clot; there was also commencing suppurative inflammation of the mediastinum, and lobular pneumonia. Von Riedel puts the vagus symptoms down to the use of a two per cent. solution of carbolic acid with which the wound was washed out. He has seen one other similar case. The facts of the case are interesting, but we think the explanation not free from objections.—*Medical Times and Gazette*, December 23, 1883.

FATTY HYPERTROPHIC CIRRHOSIS WITH ICTERUS.—DR. MERKLEN reports two cases of the above nature which occurred under the service of Prof. Vulpian. From an analysis of their symptoms and the lesions detected post mortem, he draws the following conclusions:

1. The icterus in cases of fatty hypertrophic cirrhosis is the consequence of an acute or sub-acute diffuse intra-lobular hepatitis, which, by the abundant formation of embryonal cells which it causes, arrests the flow of bile in the lobule.

2. The intensity of the icterus is dependent upon the integrity of the hepatic cells, and is less marked when their fatty degeneration is complete.—*Rev. de Méd.*, December 10, 1882.

TREATMENT OF HEMORRHOIDS.—DR. GAVOY has employed the following plan of treatment in rebellious cases of hemorrhoids: it consists in freezing the hemorrhoidal vessels, and so causing an isolated arrest of the circulation. To accomplish this the base of the tumor is surrounded by a thread so as to arrest the circulation; the surface of the tumor is then touched with a piece of ice which is held there for some time; by this treatment the tumor becomes greatly reduced in size. It is not necessary to anæsthetize the patient; the treatment is also efficacious in cases of erectile tumors.—*Journ. de Méd. de Paris*, Dec. 30, 1882.

NEW OPERATION FOR RUPTURED PERINEUM.—At the meeting of the Obstetrical Society of London, held December 6, 1882, a paper on this subject was read by DR. WYNN WILLIAMS. In this operation the sides of the rent were first denuded in the usual way; then a flap of elastic tissue about two-thirds of an inch in width, about two lines in thickness, and long enough when on the stretch to reach as high as the denuded surface on the labia, was dissected up from the floor of the vagina. Sutures were then passed through the denuded surfaces in such a manner as to keep the edges as well as the flat surfaces of this flap in contact with the raw surface. This being done, the sutures were secured in the usual way. When the rupture involved the sphincter ani, the flap was made, and the sutures passed through it in the same way as in the simpler case, but the rent in the wall of the rectum was sewn up with sutures made to terminate within the bowel, and the deep sutures secured before those bringing the flap into position were tied.—*Lancet*, December 30, 1882.

POISONING BY PYROGALLIC ACID.—DR. ERNEST BESNIER reports four cases in which friction with an ointment of pyrogallic acid in cases of psoriasis produced marked symptoms of poisoning. The most severe symptoms were produced suddenly in all cases: hæmoglobinuria and hæmaturia, violent diarrhœa, and pulmonary œdema, accompanied by great collapse; death resulted in two cases. Dr. Besnier believes that the most satisfactory treatment of such conditions is to administer hypodermic injections of ether, inspiration of oxygen, and the free administration of alcohol in small and repeated doses, combined with revulsives, such as cold wraps applied to the skin.—*Ann. de Dermatol. et de Syphilog.*, December 25, 1882.

NEW OPERATION FOR SPINA BIFIDA.—At the meeting of the Leeds and West-Riding Medico-Chirurgical Society held December 1st, MR. A. W. MAYO-ROBSON showed a child, six weeks old, upon whom, when six days old, he had performed a new operation for spina bifida. The redundant parts removed by the operation were also shown. After the removal of these parts, and after stitching up the arachnoid over the spinal canal, periosteum from a rabbit was inserted between the meninges and the skin so as to cover the gap in the bones. The wound had perfectly healed; the skin over the lumbar region was quite level; there seemed to be no tenderness on pressure; the child looked strong and healthy. The sac, examined by Mr. F. H. Mayo, was found to be of the size and shape of half a swan's egg; the wall consisting of true skin and subcutaneous tissue lined by serous membrane. At one point the sac was very thin and transparent, appearing to consist only of the serous membrane covered by a thin layer of epidermis, when fresh minute bloodvessels could be seen to ramify over it. Mr. Robson drew attention to the following points: 1, the operation was performed with full antiseptic precautions, eucalyptous air being used instead of carbolic spray; 2, the meninges were closed by uniting the serous surfaces, as in peritoneal surgery; 3, the transplantation of living periosteum and its continued vitality; it had not yet, however, formed new bone; but already the covering of the canal had a greater than mere skin-firmness; 4, the entire absence of bad symptoms in the child, operated upon at so early an age, was noticed.—*British Medical Journal*, December 30, 1882.

PULSATION OF THE SPLEEN IN AORTIC INCOMPETENCE.—It would appear that this sign of aortic incompetence has not been previously described. Attention has now been drawn to it by Dr. Gerhardt, in the *Zeits. für klin. Med.*, IV., S. 449, without any attempt being made to magnify the importance of the phenomenon. We are familiar with pulsation in the smallest vessels of many of the visible parts of the body in aortic incompetence, including the bed of the nails; and Quincke has shown how the two factors necessary for its production are, relaxation of the vascular walls, and sudden great variation in the blood-pressure, such as occurs in aortic regurgitation. In Gerhardt's three cases the spleen was large and the patients in high fever. The splenic tumor swelled during cardiac systole, expanding gradually, and diminished in size again during diastole. A dull double sound was audible over the tumor, apparently distinct from the cardiac murmurs which could be made out at the upper part of the tumor. To the finger the pulsation had not the characters of an aneurism, but was of the nature of a soft swelling, very much as in pulsating jugulars. The sign appears to be not entirely without some prognostic value, inasmuch as it indicates a sound condition of the left ventricular walls, and compensation, as far as possible, of the valvular inadequacy.—*Medical Times and Gazette*, December 23, 1882.

ARTERIO-VENOUS ANEURISM.—At the meeting of the Société de Chirurgie, held Dec. 6, 1882, M. POLAILLON read a report of a case of an arterio-venous aneurism which became purely arterial by the obliteration of the vein which communicated with the artery. The disease occurred in a man who, when 11 years old, had

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accidentally cut himself in the bend of the arm with a pen-knife. An aneurismal tumor of the size of a small nut resulted, and remained without change for forty-two years, when it suddenly increased in size, and caused intense œdema of the arm and forearm, and rupture appeared imminent; the radial pulse could not be felt. The arm was amputated and antiseptic dressings applied. The operation resulted favorably. The examination of the tumor, after turning out the fibrinous clots, showed that it had been an arterio-venous aneurism, but that the humeral vein had become obliterated up to the shoulder, while the humeral artery was atheromatous; the obliteration of the vein was evidently due to phlebitis and thrombosis.—*L'Union Médicale*, December 12, 1882.

PURULENT PERITONITIS; LAPAROTOMY; CURE.—ANTON SCHMIDT, of Moscow, reports a case of purulent peritonitis occurring in a man, aged 21 years, during convalescence from an attack of relapsing fever. The abdominal cavity was opened by an incision extending from the navel to the pubis, and about five pounds of pus removed. Careful drainage was established, but no injections were employed; a Lister dressing was used. Cure occurred without any complications other than occasional attacks of colic.—*Centralb. f. Chirurg.*, November 25, 1882.

LOCALIZATION OF ARTICULATE SPEECH.—At the meeting of the French Academy of Medicine, held Dec. 12, 1882, DR. BILOT presented a memoir on the seat and direction of the capsular radiations whose function is concerned in the transmission of speech. The author believes that, according to his researches, the opinion of Bouillaud, who accorded no more importance in this connection to one frontal lobe than to the other, is more nearly correct than that of Dax and Broca, according to whom the left side alone is functionally concerned with articulated language. If the frontal lobe is not, strictly speaking, the governing organ of speech, it nevertheless contains the agents charged with its transmission. The memoir was referred to a commission, composed of MM. Vulpian and Mathias Duval.—*Gazette Hebdomadaire*, Dec. 15, 1882.

ERGOT IN DIABETES INSIPIDUS.—DR. ALFRED CARTER, in the *Birmingham Medical Review* for December (No. 52), gives a brief account of a trial of ergot of rye in diabetes insipidus. The patient was a little girl aged six, who had suffered from her complaint for about twelve months, probably, before she came under observation. The treatment lasted over a period of three months, including a fortnight in the early part during which the drug was suspended. The liquid extract was the preparation used, at first in doses of fifteen minims taken three times daily, afterward gradually raised until no less than nine drachms a day were being administered. He arrives at the opinion that ergot had no notable effect in diminishing the flow of urine for the following reasons: 1. The flow increased for the first three weeks, though ergot was taken. 2. Ergot was resumed after its withdrawal for a fortnight; yet the average flow during the four following days was sixteen ounces in excess of the daily average during the period of suspension. 3. Though the daily flow during the last two months was materially less on the whole than before, yet toward the end of this period it increased some sixteen ounces beyond the average of the earlier part, though at the same time the dose of ergot was systematically increased. 4. On the final suspension of the ergot the daily average diminished at first, and did not afterwards exceed the average flow during the time that no less than nine drachms of the extract were being taken daily. 5. Such improvement as did occur appeared to be more closely related to the improvement of general nutrition than to anything else. We think it is evident, then, that ergot may be added to the somewhat long list of drugs which exert no beneficial influence on this formidable malady.—*Med. Times and Gaz.*, Dec. 23, 1882.

NEW REMEDY FOR SYPHILIS.—PROF. LIEBREICH brought forward, at the last meeting but one of the Berlin Medical Society, a new drug for the treatment of syphilis by the subcutaneous method. This drug rejoices in the name of hydrargyrum formidatum, and is, therefore, merely a different form of the old cure for syphilis. The mode of its preparation was not stated; chemically, it belongs to the amide group, in whose structure the monovalent amidogen (NH_2) plays an important part. Liebreich was led to think of this new preparation from the notion that the ordinary amides of the body, of which urea may be regarded as the principal one, pass out of the organism in an undecomposed state; when, however, an amide is in combination with a metal, decomposition readily occurs, and the metal is reduced and deposited. Liebreich repeated his experiments before the Society, and showed that these conjectures were quite true for the metal mercury. It is supposed, therefore, that the formamide of mercury, after the hypodermic injection, undergoes disintegration; and so the mercury is set free, and is able to exert its well-known power over the lesions of syphilis. The preparation is easily soluble in water, is of neutral reaction, does not coagulate albumen, is not precipitated by caustic soda, and the presence of mercury can be demonstrated by means of sulphide of potassium. The drug, when injected under the skin, produces its effects very surely and rapidly. This is not regarded as a disadvantage, for the medicine is said to be easily borne, and has never produced salivation in Liebreich's hands. There is very little pain attendant on the injection, which has never excited any inflammation. From a half to a whole of a Pravaz syringeful (a one per cent. watery solution) may be injected twice or thrice daily. Liebreich looks on the preparation as the best we yet have for subcutaneous injection.—*Med. Times and Gaz.*, January 6, 1883.

SYMMETRICAL GANGRENE OF THE EXTREMITIES.—At the Pathological Society of London, on December 5th, the body of a child, which presented a most remarkable example of this rare condition, was shown by Dr. Southey. The body was that of a well-nourished girl, aged two years and a half. A few months ago, she had a "feverish attack," which was accompanied by some purpuric spots on the limbs. On November 13th, another slight feverish attack occurred, and lasted three days. The child remained in good health up to the afternoon of December 1st; she then complained of headache; on the following morning, she appeared quite well. In the afternoon, she complained to her father that she had "hurt her legs." He rubbed the backs of her calves, but this increased the pain; and he noticed that the skin in that situation was livid; soon after, she vomited, complained of headache, and was "feverish." At 6 P.M. on that day (December 2d), she was worse, the patches on the calves were blacker, and were extending up and down the calves; the parents also noticed, at this time, that the backs of the arms were becoming affected in a similar way. At 6 A.M. on the following morning, it was noticed that the buttocks had become livid. At noon on December 3d, she was admitted into St. Bartholomew's Hospital in a moribund condition; the pulse at the wrist was feeble, somewhat wiry, but could be counted. The tibial pulse could not be felt. The patches of lividity felt hard and tough; the lungs and heart ap-

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peared to be quite healthy; liquid nourishment, brandy and milk, were taken, but soon vomited as a rule; two doses of nitro-glycerine were also given, but immediately vomited. At 7 P.M., a convulsion occurred; up to this time, intelligence had been preserved; but, after this, convulsions became very frequent, and she died at 11.45 P.M., on December 3d; the whole duration of the case was thus not much over thirty-two hours. The necropsy had been made by Dr. Norman Moore, but no coarse lesion could be found in the viscera. He had examined the femoral and other arteries of the left lower limb, but had found no embolus. The parts affected were the legs, in almost their whole extent, the buttocks and the neighboring part of the back, the backs of the arms, and the cheeks; the lesions were remarkably symmetrical. A theory to account for these cases, of which Dr. Southey had seen three or four, but none so well marked as this, had been put forward by M. Reynaud, who supposed that there was a spasm of the arteries, with subsequent migration of blood-corpuscles, and transudation into the skin.—*Brit. Med. Journ.*, December 9, 1882.

EXTIRPATION OF KIDNEY.—At the meeting of the Sheffield Medico Chirurgical Society, held December 7, 1882, DR. KEELING showed a large tumor of the right kidney which he had removed, at the Jessop Hospital, by a front abdominal incision from an unmarried woman, aged 23, on August 10, 1882. The tumor was thought to be ovarian in the first instance, its real nature not being ascertained until the peritoneal cavity had been opened. The stump of the tumor, consisting of the pelvis of the kidney and the renal vessels, was secured by catgut ligatures, and a long drainage-tube was placed in the track of the wound. The hemorrhage in the latter part of the operation was severe, and the patient almost pulseless when carried to bed. Convalescence was retarded by profuse suppuration and diarrhœa. The wound was finally healed on the thirty-eighth day; the patient had now (four months after the operation) completely recovered. The tumor was cystic in its character, with strong fibrous walls, continuous, apparently, with the capsule of the kidney. It was developed on the concave aspect of the gland, and the kidney itself, otherwise but little altered in appearance, was flattened out on the back of the tumor. It had been growing for more than three years, but had not given rise to any kidney symptoms.—*British Medical Journal*, December 30, 1882.

IPECACUANHA AS AN OXYTOCIC.—DR. PITKIN confirms the assertion that ipecacuanha administered during tedious labor will augment the energy of the uterine contractions, and reports a case in support of his statement.—*Journ. de Méd. de Paris*, Dec. 2, 1882.

SOME CURIOUS LAPAROTOMIES.—ROSENBACH (*Gaz. Méd. de Strasbourg*, No. 11, 1882) reports the following cases:

1. Extirpation of a cancer of the rectum extending high into the pelvis; detached by abdominal incision, and removed through the anus. The abdomen was opened directly above Poupart's ligament, the sigmoid flexure drawn out, and divided between two ligatures; the upper end of the divided gut was then sutured in the abdominal wound, to form an artificial anus, and the lower end was disinfected and returned, after division of the mesentery, to the abdominal cavity. The abdominal wound was then closed, and the rectum extirpated through the anus. Drainage was carried on through the perineal wound, which was not closed, but stuffed with iodoform gauze. Death occurred from collapse on the second day.

2. Operation for a distended gall-bladder containing a large number of calculi. The tumor occurred in a girl aged seven years; had existed for two years; was the size of the fist, and was situated in the right half of the abdomen; distinct fluctuation could be detected. The abdomen was opened, and the gall-bladder stitched to the edges of the abdominal wound. Ten days afterward the gall-bladder was opened, and a large quantity of clear, mucous fluid removed, and about forty calculi. Cure occurred without any febrile reaction.

3. Extraction of biliary calculi through an abdominal incision. Cure resulted in spite of the fact that several calculi were lost in the peritoneal cavity.

4. Retro-visceral dermoid cyst, Laparotomy to the left of the umbilicus. As the cyst could not be removed, the abdominal wound was closed, and the cyst sutured to it and then opened. Cure took place without febrile reaction.

5. Laparotomy for congenital retro-peritoneal tumor; neuroma of the solar ganglion. (Result not stated.)

6. Laparotomy for intestinal obstruction from compression by an abscess of the pancreas. (Result not stated.)—*Journ. de Méd. de Paris*, Jan. 6, 1883.

LITHOLAPAXY IN INDIA.—DR. P. J. FREYER states in the *Indian Medical Gazette* for December, 1882, that he has employed this operation in ten cases, and he is so thoroughly satisfied with its results in every respect that he has now decided on practically abandoning lithotomy in the adult in favor of the new operation, except in cases of large and hard calculi, and when the case is complicated by stricture. In all cases he introduces a morphia suppository immediately after the operation, and gives ten grains of quinine internally as soon as the patient recovers consciousness. He thinks this plan aids in warding off urethral fever. He believes that litholapaxy will become very popular in India, where the natives are averse to any mode of treatment that involves a series of several distinct surgical operations.

GENERAL PROGRESSIVE MUSCULAR ATROPHY WITH PARALYTIC LUMBAR LORDOSIS.—DR. LUDWIG LANGER reports a remarkable case of progressive muscular atrophy leading to paralytic lumbar lordosis, which is especially interesting from the extreme distortion of the skeleton produced, leading to the supposition, at first sight, that the case must be one of some disease of the bones. It is further clinically interesting from the high degree of development of the characteristic symptoms, and, anatomically, it brought into prominence the action of numerous groups of muscles which ordinarily are not accessible to study.—*Deutsches Arch. f. klin. Med.*, December 18, 1882.

DIAGNOSIS OF TUBERCULAR ULCERATION OF THE LARYNX.—At a recent meeting of the Berlin Medical Society, DR. FRANKEL made an interesting communication on this subject. He believes that in a large number of cases the lenticular tubercular ulcer is quite characteristic. The tubercle is found completely beneath the epithelium and sets up an ulceration, which, in general, tends to spread to the surface; the borders are not sharp, but they can be always recognized by their sloping character from new filtration with recent granulations; the bottom of the ulcer is lardaceous. The ulcer is surrounded by an inflammatory zone, in which deposits of miliary tubercle can also be recognized.

In many cases, however, the ulcer does not have sufficiently distinct characteristics to permit of a diagnosis without the accessory information drawn from auscultation and percussion.—*Rev. Mens. de Laryn. d' Otol. et de Rhinol.*, January, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

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SATURDAY, FEBRUARY 3, 1883.

STATE BOARDS OF HEALTH.

IT seems strange that any argument should be required at the present time in favor of the establishment of State Boards of Health; yet such would appear to be the case, if we may judge from the hesitancy with which legislators approach the subject, and their repeated failures to adopt salutary laws, even when endorsed and urged by those best qualified to judge of their character and importance. As an example of culpable indifference and neglect, in staving off from year to year a measure which has elsewhere been demonstrated to be of unquestionable advantage to the health and well-being of the people, the State of Pennsylvania assumes an unenviable prominence.

Annually, for years, the Legislature of this State has had before it a bill creating a State Board of Health, but it has always failed to enact it into a law. At the present time such a bill is again pending, the passage of which, in its main features, is earnestly desired by sanitarians and philanthropists, not only in this Commonwealth, but in the adjoining States, many of which have already been provided with central boards of health, and have a common interest in all measures tending to prevent the spread of disease.

Without a department of public health a State government is deficient in its organization. Agriculture, education, finance, law, fish culture, and the like, are all objects of which the State properly takes cognizance; but what sufficient reason is there for ignoring the equally important obligation to care for and protect the health of her citizens?

The establishment of a State Board of Health is necessary for the collection and preservation of vital statistics. Apart from their essential value as records for future reference in studying some of the great problems of the human family, they will be of immediate and indispensable importance as a guide in searching for the causes which undermine the health and jeopardize the prosperity of the people. One of the most important functions of such a board is that of sanitary investigation and research upon questions affecting the health and life of citizens of the Commonwealth. No better proof of the advantages resulting from the performance of these duties need be presented, than that furnished by the instructive reports of the boards of health of the States of Massachusetts and Michigan.

It should be the duty of the State Board to foster and encourage the study of the preventable causes of disease, and the application of the remedies; to discover the needs of the people with respect to sanitary laws, and to suggest, explain, and recommend the appropriate legislation; to represent and guard the interest of the whole State in national and inter-state sanitary legislation and conferences; and to act as a central bureau for the collection, record, preservation, and dissemination of valuable information on all subjects pertaining to the health and life of the people.

As a medium of communication and of concerted action between local boards of health, and of aiding such boards in the suppression of nuisances when the cause is beyond their jurisdiction, as, for example, in case of defilement of streams and water supplies, such an organization will prove to be of the utmost advantage.

We trust that the members of the Legislature of Pennsylvania will recognize the truth of the old Latin motto, "*salus populi suprema est lex*," and that they will no longer allow the State to occupy the unenviable position of being one of the nine States in the Union which remain without a State Board of Health to investigate, supervise, and advise in the interests of the life and health of the citizens of the Commonwealth.

ANASARCA ACCOMPANYING TYPHOID FEVER.

ANASARCA accompanying typhoid fever appears to be a rare condition in the hospitals of Paris, for M. Leudet has not met a single case in that city in a service of six years, while, curiously enough, he observed eight in the Hôtel Dieu of Rouen, in a short space of time; and Griesinger noted it in one-fourth of the cases of a typhus (typhoid?) epidemic in Germany in 1857. It was also noted by the earlier English physicians, by Magnus Huss in an epidemic in Sweden in 1855, and by Virchow in an epidemic in Upper Silesia in 1849. The occur-

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rence in the hospital service of M. Millard, of a case of typhoid fever, in which, after a profuse intestinal hemorrhage on the seventeenth day, there supervened, suddenly, general anasarca without albuminuria, has led M. Ch. Eloy, in a recent number of *L'Union Médicale*, to carefully study the entire subject.

Four classes of cases of dropsy complicating typhoid fever have been observed:

1st. Local and partial œdema, resulting from thrombosis. Such are the cases of thrombosis of the internal saphenous or other veins of the lower extremity, resulting in *phlegmasia alba dolens*, or milk leg, which are by no means confined to typhoid fever, but may occur in any cachectic state.

2d. Anasarca with nephritis, of which Traube reported a remarkable case, in which the œdema was confined to the hands and feet, accompanied by suppuration of the kidney, and believed to have been due to typhoid fever. Such an origin was denied by Rayer, but Griesinger, Frerichs, Rilliet and Barthez, and others still, have observed remarkable alteration of the kidney in this disease. We have ourselves met an instance of this complication—nephritis—which gravely threatened an unfavorable termination of the case, but the patient ultimately recovered.

3d. Anasarca and serous dropsy *with* albuminuria, noted by Griesinger, Harley, and others. In the experience of the former they occurred in the third week, and with the latter on the thirty-fifth day after the beginning of convalescence. In the last case, febrile phenomena and desquamation accompanied the invasion of the anasarca; and in some cases were noted an abundance of sudamina, and sometimes a true miliary eruption. The instance occurring as late as the thirty-fifth day after convalescence began, ushered by fever and desquamation, we should be inclined to consider independent of the typhoid attack, from which it was so far separated. Further we can see no reason for separating the second and third categories. Both must be the result of a renal complication, and seem to differ only in the seat of the dropsy.

4th. Anasarca and serous dropsy *without* albuminuria, occurring in the third week, coincidently with defervescence—the case related by M. Eloy being of this class, which is also the most common, since out of eight cases of the dropsy, albuminuria was absent in six. It is often preceded by copious perspiration or diarrhœa; sometimes by a profuse enterorrhagia, as in the case reported; at others by a pulmonary accident, as bronchitis or pleuro-pneumonia, that is to say, some debilitating cause; and, in general, the subject is a feeble one, and the type of the fever adynamic. Usually the approach is sudden, and for the most part without fever. The urine is commonly increased in quantity, but otherwise normal. The anasarca is not confined to the connective tissue, but may, though rarely, invade the pleura or peritoneum. Its effect upon prognosis is not, as a rule, more serious than to retard convalescence.

As to the pathogenesis of these conditions, neither cold nor geographical peculiarities are sufficient to account for them, and it would seem necessary to admit a morbid condition of all the tissues of the organism, and a dyscrasic state of the blood, provoked in some one of the ways alluded to, or by unfavorable surroundings, as those of famine, poverty, and confinement in prisons, etc. That conditions of the blood have much to do with them is proved by the fact that anasarcas have succeeded upon repeated bleeding in the course of typhoid fever. It is needless to say that a restorative and tonic treatment is indicated.

GAMBETTA—HIS MODE OF DYING.

THE lesions disclosed at the autopsy of Gambetta serve to illustrate some interesting and important pathological questions. The perityphlitis, colitis, and the localized peritonitis, whilst the immediate cause of death, were accidents only, arising in the course of a constitutional state. His habits of life were sedentary, and he was addicted to the pleasures of the table. A member of the *bourgeoise* class, whose ancestors were compelled, by the stress of circumstances, to adopt a frugal life, he inherited their constitutional peculiarities. The changed conditions of life as he rose into political importance, and the indulgences which he permitted himself, induced obesity and a depraved condition of his fluids and solids. One of the results of these causes was the development of glycosuria—of that form of the malady associated with a vigorous state of the nutritive functions. Such subjects grow very fat, eat enormously, and pursue sedentary occupations. The condition of glycosuria is not constant, it is rather intermittent, and diet and exercise have a very pronounced effect in causing the disappearance of the sugar. Such subjects, it is now known, may continue for many years to present this congeries of symptoms. Whilst they may not experience very pronounced symptoms from this cause, and may continue for a long time fair, fat, and flabby, they are peculiarly liable to intercurrent diseases of a formidable kind—to serous and parenchymatous inflammations. Such was Gambetta's fate. Confined indoors by a wound, and doubtless poisoned from this source, he experienced an intercurrent inflammation. His system was poorly prepared to resist the inroads of such a malady. His tissues were flabby, watery, fatty, and his vital resources, therefore, at the minimum.

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Such a case is a whole series of moral homilies. To the physician the moral is—inculcate the art of right-living, for the secret of prevention consists in the adaptation of the personal hygiene to the peculiar state of the social conditions. We leave to the moralist the lessons appropriate to such a termination of such a life.

THE NATIONAL ASSOCIATION FOR THE PROTECTION OF THE INSANE.

A SMALL number of eccentrics meet semi-annually to discuss the problems connected with the care of the insane. What purpose, soever, may ostensibly claim their attention, the one subject to occupy them is, the abuses of asylum management. They wish everything changed, but, like iconoclasts in general, they are more apt at breaking up than constructing. They are more especially concerned that admissions to asylums should be more difficult—desiring to avoid the incarceration of sane persons, which they affect to believe is very frequent. During the proceedings of the meeting in which the remarkable paper referred to below, was read, a severe rebuke was administered to the authors of these reckless assertions by a former member of the State Board of Charities, who affirmed that, as a result of many years' observation of asylums in Pennsylvania, he had never known of a single instance of the incarceration of a sane person. Dr. John L. Atlee, of Lancaster, confirmed Mr. Well's vigorous statements, and twenty-five years' service as a trustee of the Harrisburg Asylum surely has given him the right to speak authoritatively.

A very remarkable paper was read by a clerical gentleman who may be fitly characterized as a "reverend idol." He held forth on the duty of the sane to the insane. We learn that he belongs to the group of sensational preachers—moral teachers, who are nothing if not startling; who deal in epigram, in antithesis, in paradox, in climax and anti-climax, in any rhetorical clap-trap which will startle their hearers. His paper was a sensational sermon, read in the deepest of clerical bass, and with a manner compounded of pertness, self-sufficiency, and affected modesty, which he has found effective, doubtless, in his congregation of adorers. Too wise a man was he to perplex his audience with weighty problems. He contented himself with portraying the horrors of asylums, the fatal ease with which the sane are incarcerated, and the barbarities of the medical profession. He exhibited a sublime disregard of facts. He began by asserting that insanity was a disease of modern civilization only, that it divided with the "ubiquitous malaria" the attention of physicians, that asylums were dreadfully mismanaged, and that the sane were easily shut up in these monstrous prisons without possibility of escape, condemned to endure perpetual wrongs. He did not instance a single example of a sane person confined in an asylum, although he was not the less confident of the existence of such cases. The chief actors in these iniquitous proceedings are the doctors. They give the certificates on which the victims are confined, a doctor, as an asylum superintendent, holds the hapless subject a prisoner, and doctors are willing witnesses to support any enormity, if properly paid.

All this, and much more, did the "reverend idol" pour forth with self-satisfied consciousness. When his paper was ended interest in the proceedings ceased for him, and he retired, leaving the audience to digest at their leisure his platitudes, and his sonorous but empty paragraphs. The insane who need protection have little hope when defended by such an advocate. "What went ye out for to see? A reed shaken by the wind?"

CARDIACENTESIS.

THE inquiring spirit of the times is well exhibited in the novelty and boldness which characterize the surgical expedients now carried out, or proposed. To reach eminence quickly, the young surgeon must startle. He must explode, so to speak, under the ancient surgical edifice, a cask of dynamite, to awaken the inmates of this conservative institution to a realization of the tremendous revolution going on about them. When these old fellows talk about Sir Astley Cooper tying the abdominal aorta, they are stunned by the intelligence that Billroth removes the larynx, and substitutes a rubber counterfeit, and takes out as much of the stomach as happens to inconvenience the patient. It has not yet been proposed to remove a damaged heart, and substitute a sound bullock's heart; but this operative procedure, as bold as it may appear, is approximated to by the scheme to tap the heart itself, when the venous system is overloaded.

This new operation of cardiacentesis was recently advocated by a New York surgeon. The proposition is to tap the right auricle, and draw off sufficient blood to relieve an overloaded state of the venous system. The reasons, therefore, are conclusive.

> "Whatever skeptic could enquire for;
> For every WHY he had a wherefore."

The small difficulties in the way of this brilliant operation are of little moment compared with the magnificent *coup de théâtre* of the procedure itself. What matters it if any of the great venous trunks are perforated? It is true, when a needle is inserted the movements of the heart must widen the orifice made. An inhibiting ganglion might be irritated, with the effect to slow the already laboring organ.

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A motor ganglion might be perforated, suddenly cutting off the nervous force generated by it.

To urge such objections as these, is to indicate a woful lack of that progressive spirit exhibited by modern surgery. Such objectors are inveterate old fogies, who must be abandoned to their idols, as incapable of a higher order of surgical achievements. There are physicians, also, who object to tapping the right auricle, on the ground that the venous system may be unloaded by opening a vein in the arm. A physician who entertains such an opinion is simply incapable of appreciating the triumphs of surgery, and may be classed with those surgeons who are so hopelessly conservative as to prefer some trivial operation to a grand *coup*, which whilst it may end the career of the hapless patient, starts the surgeon on a course of brilliant operative methods.

THE DANGERS OF SEWER GAS.

THE *New York Times* of January 24th has an article upon the dangers of sewer gas, etc., in which Memphis is cited as an example of increase of disease following the introduction of sewers. This article has been prepared without any regard to the facts of the case, very much after the manner of an anti-vaccination pamphlet. It commences by stating that the Memphis system of sewage was constructed under the superintendence of Major Benyaurd, U. S. Army, when in fact Major Benyaurd had nothing whatever to do with the construction, which was effected in part under the direction of Col. George E. Waring, and part under that of the City Engineer. It goes on to say that the result has been a settled and apparently consequent increase of the ratio of mortality, and that the deaths from dysentery have doubled, and those from diphtheria have more than quadrupled. From this it concludes that "it would really seem as if they are right who contend that no ingenuity of trap, valve, or ventilation, no matter how carefully executed in every detail, can prevent the percolation of noxious gases into a dwelling house that is directly connected with sewage mains. It is an assured fact that since the attention of sanitary engineers has been especially directed to this subject in this City [New York], tracing back the agitation for the last three years, there has been a steady increase in the annual ratio of mortality. There have been no great epidemics to account for this fact, tenement and apartment houses have been steadily improving in sanitary provisions, the streets have been kept cleaner than before, our recent structures have comprised all the requisites of good plumbing and good engineering, and yet, as in Memphis, dysentery and diphtheria have obstinately persisted in strengthening their hold. . . Until the present system of direct connection [of our sleeping-rooms with the sewage mains] was adopted, diphtheria was infrequent, and dysentery a rare disease, and it is fair to infer that their recent prevalence is in some manner due to the later mode of building."

The truth is, that diphtheria has been a rare cause of death in Memphis. The diseases to which the largest number of deaths in Memphis during the last three years have been due, are consumption, pneumonia, diarrhœa, and dysentery, and a group of diseases among infants, more especially the colored, variously reported as debility, marasmus, inanition, etc. The prevalence of bowel diseases in Memphis is no doubt connected with its water supply, which is very impure. In short, so far as the records of deaths in Memphis for the last three years have been published, they do not indicate that the sewers have caused disease, except in one way—viz., that the outlet of the sewerage is so situated with reference to the water-works, that at times some of the sewerage is probably mingled with the water supply.

With regard to the statement that recent structures in New York City "have comprised all the requisites of good plumbing and good engineering," etc., the reports of the inspectors of the Board of Health, and the records of trials of "skin plumbers" published in the columns of *The Sanitary Engineer* tell a very different story.

THE PRICE OF SANITARY CORDONS.

FROM the Report on Quarantine for the year 1882, by Dr. R. M. Swearingen, Health Officer of the State of Texas, we learn that to invest the fever district and confine the infection to its narrow boundaries, a double line of guards were stationed, one along the Arroyo Colorado, a stream encircling Brownsville on the east and north, and about thirty miles distant, and the other reaching along the railway between Corpus Christi and Laredo. "The expenses of these extensive lines were necessarily great. September 30 the Marine-Hospital Service had paid out twenty-six thousand eight hundred and fifty-five dollars, and the expenses all told, up to the date that quarantine was raised, must have aggregated sixty-five or seventy thousand dollars." Dr. Swearingen continues, "The good accomplished, however, can not be estimated by dollars and cents. The fact that the epidemic was confined to one place in Texas, while it desolated ranches and towns for hundreds of miles up the Rio Grande on the Mexican side, is strong evidence that the money was not squandered uselessly."

The result may justify the expenditure, but we must not forget that at the same time Pensacola

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was suffering from a similar epidemic, and that the disease was confined to one place in Florida without any expenditure for the payment of guards to confine it. In 1879, when a terrible epidemic raged in Memphis, and lesser outbreaks existed in New Orleans, in the Teche country, and various points elsewhere, the disease was confined to these numerous foci at an aggregate cost considerably less than was incurred at this one locality in Texas.

It is true that the Texan cordon guarded a long line of river, but this was done incidentally. The line did not extend along the Rio Grande, but at such a distance in the interior as would have been necessary had Brownsville alone been under guard. The establishment of a close guard is open to the objection of shutting up the whole population in an infected city, thus precluding the application of one of the most rational measures of protection, that, namely, of prompt depopulation, while a cordon placed advisedly at thirty or more miles distance costs sixty-five or seventy thousand dollars.

REVIEWS.

SYPHILIS. BY V. CORNIL. TRANSLATED, WITH NOTES AND ADDITIONS, BY J. HENRY C. SIMES, M.D., and J. WILLIAM WHITE, M.D. 8vo. pp. 461. Philadelphia: Henry C. Lea's Son & Co.

THE reader of this book will find that, despite the long-continued and careful study bestowed upon syphilis, there are yet many things very far from being settled concerning it. If he has adopted the dualistic theory made familiar to American readers by the work of the lamented Bumstead, he will receive somewhat of a shock when he discovers that, while M. Cornil, in common with many other reliable authorities, is a staunch dualist, his American editors incline to believe in the common origin of chancre and chancroid. It will be impossible for him to resist the conviction that Drs. Simes and White in presenting their view reflect the opinions of a small, but growing number of syphilographers; and while he will probably conclude that the correctness of the position of the unicists is by no means established, it will be impossible for a fair-minded man to resist the conviction that neither theory by itself is adequate to explain all the questions which arise. The result of a careful perusal of this volume must be to leave the mind of the student in a somewhat chaotic condition concerning the nature of syphilis. Indeed, when he observes that M. Cornil is a dualist, and that his editors, to say the least, incline to the opposing theory, the reader may almost despair of himself arriving at a fixed state of mind in the matter. Yet, however disagreeable a state of incertitude may be, it is the attitude becoming the true scientist. It might be thought that the time devoted to the accumulation of observed facts had been sufficiently long, and that we might now begin to generalize with safety; but a survey of this book will at once convince that the end is not yet, and that we must yet be prepared to receive further facts, and that the nature of the syphilitic poison, in common with that of tuberculosis, and many constitutional affections, is still undetermined.

The additions of Drs. Simes and White are very considerable, as well as of great importance. The translation has been very well done, and the translators have made some most judicious alterations in the arrangement of the work. A distinguishing feature of the book is the attention paid to histological details and the visceral lesions of syphilis. We know of no work which is of equal value in either of these respects. It is a book which must be studied by every one who desires to acquaint himself with the views of the day concerning syphilis, a disease which seems to be of ever-increasing importance as a factor in the history and well-being of man.

It is to be hoped that Drs. Simes and White may see fit to prepare an independent work of their own upon the subject, which would seem to be warranted by the number and value of their additions to M. Cornil's lectures, and which would more fully bring their opinions before the profession, unhampered by their attitude of commentators.

THE BUSY PHYSICIAN'S VISITING LIST, CLINICAL AID, AND POCKET LEDGER. Detroit: Geo. S. Davis, Medical Publisher.

THIS new candidate for professional favor, as an aid to the daily life of the doctor, has much merit. It is adapted to any date, and can be used both for the daily record of engagements and for an account book. It has calenders, obstetric and annual, metric tables, and rules for the treatment of emergencies, points in differential diagnosis, a list of new remedies, etc. Although we are generally opposed to pocket-books, which aim to provide the physician with medical knowledge, we must praise the good judgment and skill displayed in the preparation of this work. We can recommend it to our readers, as a most useful pocket-book.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting January 9, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

EXCISION OF THE KNEE-JOINT.

DR. C. T. POORE presented three patients upon whom he had performed excision of the knee-joint. All the operations were performed with the circular incision. The antiseptic spray was not used. The wounds were thoroughly washed out with a solution of carbolic acid, one to forty. The bones were sutured together with wire sutures, and drainage-tubes passed through the anterior flap around the joint and out through the popliteal space. To secure immobility, the limb was placed on a posterior splint, and a plaster-of-Paris bandage applied from the toes to the groin, an interval being left at the point of operation.

The first patient was a boy, sixteen years of age, with a rather poor family history. He had pulpy disease of both knee-joints. In the right, the tibia was dislocated backwards and flexed at a right angle with the femur. The right knee-joint was excised in 1879, and the result was firm union of the tibia and femur, with two inches shortening. At the time of dismissal from the hospital, he had quite good flexion of the left knee, and was able to act as an assistant to a surveyor, which compelled him to do considerable walking. Last summer he fell and injured the left knee. This was followed by swelling and pains, and it had left that joint stiff in a straight position. Notwithstanding this he was able to walk very well.

The second patient was a girl, thirteen years of age, who fell and injured the left knee-joint six years ago.

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The injury was immediately followed by swelling and pain, and six weeks subsequently an abscess formed, which was opened in Bellevue Hospital. She was subsequently a patient at Roosevelt Hospital, where several large abscesses formed about the joint and the lower portion of the thigh, and were opened. She left there considerably improved, but with the limb flexed at nearly a right angle. She subsequently was admitted to St. Mary's Hospital, where Dr. Poore operated upon her in May, 1882, by removing a V-shaped portion of the lower extremity of the femur. There was considerable shortening after the operation, and there still remained a small external ulceration, but no exposed bone.

The third patient was a boy, who had suffered with abscess from Pott's disease, and also had ostitis of the head of the tibia, which opened into the joint. Excision was performed in the usual way, and there was nothing peculiar concerning the subsequent progress of the case, except that on the following day the temperature arose to 105.5° F., but fell to the normal within a few hours, and afterwards there were no unfavorable symptoms except the occurrence of a small slough upon one side of the joint, for which Dr. Poore was unable to account. In this case there still remained a small sinus, into which a probe could be introduced, but he was unable to detect any rough bone.

Dr. Poore had also operated upon another similar case, and expected that the patient would be present, but for some reason was absent. In all the cases the wounds healed promptly, and all the patients were up on the fortieth day.

FIBRO-SARCOMA OF THE PAROTID.

DR. SANDS presented a patient who illustrated the act that in the case of tumors which are unpromising n character, occasionally the disease does not return after removal, or, at least, for a very long period. This man, now thirty years of age, came under his notice in June, 1870. At that time there was a tumor in the parotid region, which was believed to involve the parotid gland. It was situated upon the right side, occupied the entire parotid region, and formed a rather low but extensive growth, which caused prominence of the ear, was exceedingly firm and entirely immovable. It had then been growing for about five months. The case was regarded as unfavorable on account of the rapidity of the growth of the tumor, and the extent and firmness of its adhesions to the deep parts, as well as to the skin. Dr. Sands decided, however, to attempt to extirpate it. When the flaps of skin had been raised, a small portion of the growth was removed, and was examined with the microscope by Dr. Delafield, who found it to be a fibro-sarcoma. The piece removed contained a large proportion of fibrous tissue, with cell elements of a round shape. The diagnosis was confirmed by the subsequent examination of the tumor after its removal. The tumor extended into the deeper portion of the neck, and was attached to the styloid process, and was so incorporated with the adjacent tissue as to make the operation very unsatisfactory. The under surface of the skin was invaded by the morbid growth, being completely incorporated with the whitish tissue of the tumor. Notwithstanding the difficulty of the operation, the patient made a good recovery. Some sloughing of the cutaneous flaps occurred, but beyond this no accident followed the operation, and the patient left the hospital six weeks afterwards with the wound healed. Before the operation the facial nerve was intact, but immediately afterwards the parts supplied by it were found to be completely paralyzed. The paralysis still remains, although it is hardly noticeable when the features are in repose. Dr. Sands had watched the case with a great deal of interest, and made his last note about one year ago, at which time there was no evidence of recurrence of the disease. About three months ago the patient discovered some swellings upon the right side of the neck, and now there can be felt six or eight flat movable tumors extending along the posterior edge of the sterno mastoid muscle down to the clavicle, the largest being about an inch in breadth and length, and about half an inch in thickness. They are very firm, being in this respect like the original tumor. The skin in the neighborhood of the operation seemed to be sound.

DR. MCBURNEY then read a paper on

TRACHEOTOMY AS A PRELIMINARY TO CERTAIN OPERATIONS.

The operations which are referred to in the title of this paper are operations for the removal of the upper or lower jaws, particularly when these parts are involved in the growth of large tumors; operations for the removal of large or vascular naso-pharyngeal polypi, or of tumors springing from the tonsils or walls of the pharynx, or tongue, or palate; and also operations which involve the extirpation of the entire tongue, or of the larynx and adjacent parts; in fact, all operations in the course of which considerable risk is run of having blood or diseased material pass into the lungs or stomach. The old method, so frequently made use of before the introduction of anæsthetics, and still recommended by some, of placing the patient in the sitting posture with the head upright, or hanging forward, offers certainly very slight advantage. Some of the blood lost will, to be sure, flow out of the mouth, but the tendency of such blood as finds its way backwards to pass down the trachea and œsophagus is greater in this position than in any other. Moreover, the difficulty of retaining a patient who is under the influence of an anæsthetic in this position, and the awkwardness of applying artificial respiration, or of doing tracheotomy if suddenly demanded in the course of the operation, and the greater liability to syncope, form very serious objections to it.

Rose's position, or the hanging head, was an ingenious device, undoubtedly applicable to certain cases. Rose placed the patient with the head and neck projecting beyond the end of the operating table, allowing the head to fall so far backwards that its vertex pointed to the floor. The naso-pharyngeal cavity then becomes a cup placed on a lower level than the orifices of the trachea and œsophagus, and blood collecting in it flows more readily out of the nose, provided the nares do not become plugged with clots, than down the pharynx. From this cup-shaped dependent cavity blood can be sponged and readily removed. This position appears to me to recommend itself in cases where hemorrhage will probably not be great, and where the seat of the operation is the palate or mouth, as in cases of cleft palate, or where portions only of the jaws are to be removed without external incisions. But in cases where hemorrhage is very great, or the disease to be removed involves the naso-pharyngeal cavity itself, the Rose position favors the accumulation of blood at the very place where it is most objectionable. Moreover, patients are not infrequently met with who behave very badly when thus placed while under the influence of an anæsthetic, the tension of the larynx and trachea apparently producing a spasm of the glottis which becomes dangerous if not relieved.

Both the upright and hanging head positions are exceedingly awkward in the administration of the anæsthetic, it being necessary to remove the cone as soon as the operation is begun, and to interrupt the opera-

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tion at intervals in order to give more anæsthetic. This last is a serious objection, for not only is the operation much prolonged, but blood is frequently lost in large quantities while the mouth and nose are concealed from view. The gravity of extensive and bloody operations about the mouth and adjacent parts has been frequently illustrated in the last few years, not a few such operations having resulted fatally to the patient, either at the time of operation or within a few days thereafter. Moreover, the nature of the disease for which most of these operations are undertaken requires that they should be performed not only with expedition, but with great thoroughness.

I do not know who first suggested a preliminary tracheotomy in the class of cases which I have referred to, but to Trendelenburg is due the credit of giving to the profession an apparatus complete enough to be of very great service in such cases. The original device consisted of a tracheal tube, surrounded in the tracheal portion with a thin rubber bag, which could be sufficiently inflated, by means of a connected bulb, to completely fill the trachea. To the outer end of the tracheal tube an elastic one, several feet in length, was fitted, at the free extremity of which was a reservoir to receive the anæsthetic. The objections to this instrument, as so arranged, are several. In the first place, if the rubber bag was overdistended, which might easily happen, it might burst, or could force its way down so as to close the lower end of the tube. This latter accident occurred to me in one case, and gave considerable trouble. The tracheas of some patients do not bear well the lateral pressure of the bag, violent cough being induced when it is distended. This I have also seen occur. To remedy the first objection, as well as to get rid of the outer bulb, and to obtain greater nicety in fitting the trachea, Dr. Friedrich Lange devised the instrument already shown to this Society. It seems to me to fulfil the indications for either temporarily or permanently tamponing the trachea better than any which I have seen.

Michael, of Hamburg, surrounds the canula with compressed sponge. Over the canula and sponge he places a sack of gold-beater's skin, soaked in a solution of rubber. A little water having been thrown into this sack, the sponge swells and effectually closes the lumen of the trachea. Dr. Foulis, of Glasgow, in extirpating the larynx, tamponed the upper end of the divided trachea with a lead canula which was surrounded with a rubber ring, thus completely closing the air tube and effectually preventing the passage of blood into it.

Dr. Lange recommends in similar cases a leaden canula surrounded with punk, which material is light, and does not allow of the passage of fluids through it. These cases, however, hardly come under the head of preliminary tracheotomy, tamponing of the trachea being necessarily done in the course of the operation. The objects of the preliminary operation are several. Firstly, to prevent the passage of blood down the trachea. Secondly, to facilitate the continuous and safe administration of the anæsthetic. Thirdly, to avoid the possibility of being called upon in the course of the operation to open the windpipe under forced and adverse circumstances. Fourthly, to permit of a continuous, rapid, and *complete* operative procedure, and thus avoid much unnecessary loss of blood. Fifthly, to secure to the patient after the operation an abundant supply of air which is not contaminated by the discharges from the seat of operation.

The passage of blood down the trachea is a danger which always threatens in bloody operations about the upper air passages, and enough fatalities have occurred from this cause to make its prevention worthy of consideration, death having been produced on the operating table, and pneumonia having been produced in other cases from the entrance of blood into the air cells. The unnoticed loss of blood is, in some cases, very great, where the operator depends upon the sponging out the larynx during the operation, blood passing down the trachea, and more especially down the œsophagus, in large quantities. When the trachea is tamponed so as to permit of a continuous administration of the anæsthetic through the canula, this loss of blood can be largely avoided, for continuous pressure can be kept up upon the bleeding points during the course of a long operation, which of course can not be done where the anæsthetic is being repeatedly administered through the mouth and nose. The continuous and safe administration of the anæsthetic has also the great advantage of not only saving time in operating, and, hence, some exhaustion to the patient, but of permitting the operator to deliberately carry out his dissection. In cases of malignant disease, as of the upper jaw, tongue, and pharynx, complete extirpation of the disease is far more likely to be attained where the tracheal tube is used than when it is not; of course, a less rapid recurrence of the disease would then be expected.

The advantages claimed for the preliminary operation can be obtained in a manner somewhat different from, and in my opinion better than, that proposed by Trendelenburg. Instead of the long and heavy tube used by Trendelenburg, one very like an ordinary tracheal tube may be used, into the outer end of which the tube to conduct the anæsthetic from the reservoir can then be fitted. It is not necessary to tampon the trachea itself, as the same effect may be efficiently obtained by packing the lower part of the pharynx with a sufficiently large sponge, to which a string is attached to facilitate its removal. Kocher recommends this plan, but I first saw this method made use of by Dr. George A. Peters, and I have seen it used by others and have used it myself with complete success. It is not perfect, however, for sponge, no matter how tightly packed, will permit of the passage of fluid. I would suggest, as an improvement on the ordinary sponge packing, a sponge covered about half with thin rubber. The rubber side being pushed down and covering the whole lower surface of the sponge, would prevent any drainage through.

There are some questions in regard to the preliminary operation which I am not able to satisfactorily answer to myself. Firstly, is there any advantage gained by doing the tracheotomy some time in advance of the primary operation? Max Schüller, in his monograph on extirpation of the larynx, recommends that the tracheotomy be done some weeks in advance, and claims that by so doing the risks of subsequent pneumonia and bronchitis are lessened. Out of fifteen cases of extirpation of the larynx which Schüller collected, five died of pneumonia, and one suffered from severe bronchitis. But I am not able to satisfy myself that any real advantage would be gained by doing the tracheotomy a long time beforehand, except in cases where the difficulty of breathing through the normal passages caused great impairment of health.

In answer to another question, I think a more positive reply can be made. How long shall the tube be kept in position after the operation?

It should of course be left in all cases where there is reason to fear that the upper orifice of the larynx may become occluded by inflammatory swelling. But another reason for retaining the tube in position is to enable the patient to obtain a supply of pure air during the suppurative stage. Kocher not only keeps the tracheal tube in, but also the sponge tampon in the pharynx, the sponge being soaked in a five per cent.

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solution of carbolic acid and removed only to allow the patient to feed. This method also enables the surgeon to treat the wound nearly antiseptically, the nostrils being plugged, the mouth closed though drained into a tube, and frequent washings of the whole cavity being resorted to. I am inclined to think that the comfort and safety of the patient would be increased by following this method in all extensive operations. Michael, Schüller, and others, also claim that by keeping up for some time this permanent closure of the larynx, patients are much less likely to suffer from (Schluck) pneumonia, or foreign-body pneumonia. I have myself made use of a preliminary tracheotomy but three times. In one of these the Trendelenburg apparatus gave me great trouble in consequence of the extreme elasticity of the rubber bag, which folded over the end of the canula when it was distended. In the other two cases for removal of naso-pharyngeal polypi, I made use of a simple canula, and plugged the lower part of the pharynx with sponge. This method gave me great satisfaction.

DR. POST said he had performed preliminary tracheotomy three times; twice upon the same subject after a long interval. In two out of the three times the operation was performed without the introduction of the tube, according to the method of Dr. Martin, of Boston, which he had found very satisfactory. He introduced a large sponge into the fauces, and only a few drops of blood escaped into the trachea. With the open trachea he found it very easy to sponge out whatever blood might enter. He had found great facility in performing tracheotomy as a preliminary operation, and believed that all the advantages which Dr. McBurney had attributed to the operation are derived from it, and that there was no additional risk from performing it.

DR. G. A. PETERS had performed preliminary tracheotomy three times. In one case he had used Trendelenburg's tube. Having seen the difficulties which Dr. McBurney had mentioned concerning the use of this tube, Dr. Peters had had the instrument modified, and supposed that he had gotten rid of the dangér, but he then found that another troublesome symptom resulted; namely, a persistent coughing the moment the bag was distended, although he had taken pains to measure the exact amount of air which was necessary to distend the bag up to a certain point. After that, he threw Trendelenburg's tube aside entirely, and had since used only an ordinary tracheal tube, stuffing the fauces with sponge. This method had given him much satisfaction. The anæsthetic could be administered without interruption, and he had had no trouble from blood running into the stomach or trachea. In one of the cases where he used Trendelenburg's tube the patient had a cough which lasted for some time, but he attributed it rather to pressure from the instrument than to entrance of blood into the lungs. He had, however, concluded that the most satisfactory method was to use the ordinary tracheal tube and stuff the fauces with a sponge.

DR. GERSTER had performed preliminary tracheotomy once, and in a case previous to exsection of half of the larynx. In that instance, he used Trendelenburg's instrument, and just after the operation had been commenced the India-rubber bag ruptured, and he was obliged to remove the canula and replace the bag by folds of gauze bound in position by silk. The canula was then reintroduced, and answered the purpose very well. With regard to one object mentioned by Dr. McBurney concerning tracheotomy as a preliminary operation, his own opinion was that preliminary tracheotomy performed a good while before the secondary operation afforded a good many advantages over its performance simultaneously with the operation for the removal of the disease. He recalled several instances where he had been present, and in which considerable time was consumed in performing the preliminary operation; thus in one instance half an hour was occupied, and it could readily be seen that in an anæmic patient the performance of the preliminary operation would necessitate the longer continuance of the anæsthetic and therefore an undesirable exposure to shock. Tracheotomy upon a grown subject was rather an indifferent operation if properly performed, and the necessary care was bestowed upon the after-treatment. The operation was not very serious, and the patient's respiratory tract became accustomed to the tube, and he, therefore, believed it to be advantageous to first dispose of this liability to accident before the operation proper was to be performed.

DR. W. T. BULL had had occasion to perform tracheotomy as a preliminary operation in four cases: three times for extirpation of a portion of the tongue, and once for removal of a recurrent growth from the side of the pharynx. In all instances he had used the ordinary tracheotomy tube. He had not seen any advantages following the use of the tube with the rubber bag. On the contrary he had thought that it interfered with expulsion of mucus from the trachea. He had not left the tube in more than forty-eight hours. He regarded the suggestion made by Dr. McBurney with reference to permanent tamponing the trachea after the operation as a very valuable one, and as an important addition in the after-treatment.

DR. BRIDDON remarked that he had been prejudiced against Trendelenburg's tube, and had simply used an ordinary tracheal tube, packing the fauces with sponges. The operations which he had performed, however, had always been laryngotomies. He thought it unnecessary to make the operation for the introduction of the instrument a tedious one. He believed there was no danger from hemorrhage, which always ceased after the introduction of the tube. He had been favorably impressed in the adoption of Nussbaum's method of narcosis in these cases, that is, to precede the anæsthetic by the use of a large hypodermic injection of morphine, perhaps fifteen drops of Magendie's solution. This is to be followed by the use of an anæsthetic, and he had employed chloroform, administering it to the production of moderate narcosis, and then performing tracheotomy. He had been surprised at the small quantity of chloroform required to maintain insensibility. In one operation not more than three and a half drachms were consumed, and the patient was able to assist at the operation, was sufficiently conscious to be able to empty the mouth of blood, etc., and yet he was placed beyond sensitiveness to the knife. He had not seen Trendelenburg's tube used without the occurrence of some disagreeable accident.

DR. WEIR had performed preliminary tracheotomy in one case with advantage; using only the ordinary tracheal tube, packing the fauces with sponges, and maintaining anæsthesia through the mouth of the tube. He was led to adopt this method because of having previously resorted to Rose's method in the removal of a naso-pharyngeal growth. It was found that the stretching of the neck unduly compressed the trachea and interfered with respiration. In the second case of a similar nature the use of tracheotomy permitted more satisfactorily the dependent position of the head. He was loath, however, to adopt preliminary tracheotomy, because he believed the operation in itself was associated with considerable risk. He had been led to this conclusion from studying the cases in which the operation had been performed for the relief of syphilitic disease of the larynx without much dyspnœa, and for rest of that organ. In two such cases pneumonia had occurred. He had also seen several instances of

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cut throat where only the trachea had been incised and where the patient's condition was good, and subsequently chest symptoms developed. He would not resort to the preliminary tracheotomy unless the subsequent operation was evidently to be an excessively bloody one, and with risks not to be avoided by position, slight anæsthesia, etc.

DR. SANDS could recall only a single case in which he had used Trendelenburg's tube, and in that instance it worked very well. Pains were taken to prevent the expansion of the rubber bag over the lower orifice of the canula, and the only inconvenience observed was the occurrence of coughing, as already mentioned by Dr. Peters. He thought that if the instrument could be used with success so far as to completely occlude the trachea, it would form a very valuable invention. He had noticed, however, that it frequently failed to accomplish the purpose for which it was designed, as it allowed blood to pass down into the trachea. He had many times excised tumors of the pharynx and tonsils, or had removed the upper jaw without encountering the least danger from the entrance of blood into the air-passages. He thought that if these points received due attention during such operation, little or no danger need arise from this cause. In the first place, the patient should be placed in a chair with his head inclined slightly forward. In the second place, profound anæsthesia should be avoided, as the blood will enter the larynx only when it is rendered quite insensible, as is the case with deep narcosis. In the third place, it was desirable to operate quickly. In two cases of naso-pharyngeal polypus which he had removed years ago, no blood entered the trachea so far as he could discover, and the patient made a good recovery. The principle of tamponing the trachea was important, however, and he would be glad to see it realized in practice. His own experience had not led him to regard tracheotomy as an operation likely to cause pneumonia, yet he was not prepared to deny that such might sometimes be the case.

DR. GERSTER said that the weight of Dr. Sands' remark was largely in the proposition which he made not to carry the anæsthetic too far. He had had occasion to perform several operations upon the upper jaw, and he had always been careful not to place the patient too profoundly under the influence of the anæsthetic; only just sufficiently so that he would not resist violently enough to prevent the finishing of the operation. In all these cases he had not seen any difficulty whatever, because when any blood entered the trachea, the sensitiveness of that tube induced reflex movements which caused an immediate rejection of the blood.

DR. STIMSON remarked that he doubted whether the patient could always be depended upon to give evidence of the presence of blood in the trachea by cough. He had one patient whom he had anæsthetized six times for the removal of a constantly recurring growth in the upper maxilla. The woman took ether badly, and complete anæsthesia was never obtained for more than one or two minutes at a time. In that case he had seen the pharynx so full of blood that air bubbled up through it, and yet the patient never coughed. He was not positive that blood made its entrance into the trachea, but it was in the pharynx in large quantities, and air bubbled up through it. No bad consequences followed.

The PRESIDENT remarked that during the last fifteen or twenty years he had performed quite a large number of these operations, and he believed that by simply bearing in mind the suggestion made by Dr. Sands, no difficulty need be experienced with reference to a serious quantity of blood getting into the trachea. He believed that in a large proportion of cases the most bloody operations could be performed with safety without preliminary tracheotomy.

FRACTURE OF THE CALCANEUM.

DR. STIMSON presented a specimen which illustrated fracture of the posterior portion of the head of the calcaneum. He believed it to be probably the result of muscular action. The patient was a man fifty-three years of age; who was admitted to Bellevue Hospital in November last for a disease of the tibia which required amputation. Eight years ago, while crossing the street, he was knocked down by a wagon and received the injury which the specimen illustrated. At the time the injury was received, the patient said that the skin was not bruised. The fragment was the portion to which the tendo Achillis was attached, at least partially. It was more than an inch in length, and about three-fourths of an inch in breadth. On its outer side the periosteum was complete; on the inner side there was a growth of bone which presented the appearance of having been the result of reparatory process. The fragment had united with the bone at its upper border, but was about half an inch anterior to its original position. The specimen was accompanied by photographs, and a plaster cast which illustrated the deformity.

DR. BULL thought that pure muscular action could not produce this fracture; that it was the result of direct violence.

DR. STIMSON remarked that there were several cases upon record in which the fracture occurred as a result of muscular action.

DR. PETERS referred to a case, and DR. WEIR to three cases, in which fracture occurred as a result of muscular action.

MELANOTIC SARCOMA.

DR. GERSTER presented a specimen of melanotic lympho-sarcoma, which he removed from the neck of a man on the fourth of the present month. Three months ago the patient got heated from running about, and then sat down in front of an open window and was chilled. This was the only fact which he had been able to ascertain concerning the cause of the growth, although he did not attribute much importance to it as an etiological factor. Immediately after this occurred, the man noticed a slight swelling at the corresponding angle of the jaw, which gradually increased in size. There was no sore throat following the chilling, nor nasal catarrh. The tumor continued to grow and he consulted a physician, who proposed to inject into it tincture of iodine. At that time it was about the size of an Italian chestnut. Considerable reaction followed the injection. The tumor did not resume its former size and shape, but continued to grow rapidly, and after three months it attained the size of a small orange. It was situated in the upper cervical triangle below the angle of the jaw. Laterally it was quite freely movable, not so vertically, and the skin over it was attached to the tumor. Dr. Gerster diagnosed lympho-sarcoma of rapid growth, and gave a grave prognosis. Removal was advised; the exsection was not difficult. Immediately after cutting through the skin it was noticed that the mass had a peculiar dark color. On account of its appearance, and from the fact that through a slight puncture made by a hook introduced into its capsule for the purpose of lifting the tumor up, a black material exuded, he did not attempt to remove the tumor from the capsule, but dissected out the capsule and all, keeping well to the outside of the growth. At the lower and inner part of the tumor, where it approached the superior thyroid artery, there was a dense mass of connective tissue of recent inflammatory origin, which had attached the capsule to the bloodvessel, and also enclosed a small bundle of lymphatic vessels.

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Immediately upon the oozing of the black muddy material, which presented the appearance of graphite, through the opening made by the hook, he removed the instrument and applied a ligature round the point, carefully cleansed the part, and then proceeded to the dissection without further assistance of this kind. At the upper and outer angle of the jaw, a large number of lymphatic glands were found which had exactly the characteristics of the tumor itself. They looked like a chain of small blue grapes, and burst as soon as touched. They were dissected away also with some connective tissue by which they were surrounded. When the tumor was cut open, it was found to contain a cavity in which there moved freely a black body that was surrounded by the dark fluid material already mentioned. Microscopical examination revealed that the growth consisted almost entirely of round-celled pigmented elements, with a very sparse stroma. The mass which was free in the centre, was doubtless the original swelling or lymphatic gland noticed first by the patient in the neck. The thick melanotic envelope enclosing this glandular body apparently represented the degenerated glandular capsule. The wound was closed by a few silver wire sutures, and healed by first intention. Early recurrence of the disease is to be expected.

FIBRO-MYOMA OF THE SCROTUM.

DR. W. T. BULL presented a specimen accompanied by the following history: H. C. F., forty-eight years of age and married, entered the hospital October 16, 1882. He gave no specific history, there was no history of cancer in the family, there was no history of traumatism. About twenty years ago, the patient first noticed a small, hard lump about the size of a marble in the lower part of the right side of the scrotum. There was neither pain nor tenderness on pressure, nor discomfort of any kind. This mass gradually increased in size until two or three years ago, since which time it had grown much more rapidly. On admission he complained only of the weight and inconvenience. The scrotum formed a tumor as large as a child's head, the enlargement being on the right side. The skin was normal with large veins, the tumor was ovoid in shape, and reached upwards as far as the external abdominal ring, which was dilated, and filled up when standing by a hernial protrusion as large as a goose egg, which could be easily returned. The surface of the tumor was smooth but uneven, and marked by several rounded projections which were semi-fluctuating. The right testicle was on its lower end softer than the left, and apparently somewhat flattened, but movable in the tunica vaginalis. The circumference of the tumor at its upper limit was fifteen inches, at its lower part eighteen inches, and was of firm elastic consistence, and not at all tender. There was no pain either from it or the hernia. The patient had worn no support. There were no enlarged glands. Removal was advised. The parts were washed with a solution of carbolic acid, 1 to 40, after which ether was administered. Dr. Bull was assisted at the operation by Drs. George A. Peters and R. F. Weir. The hernial protrusion was put back and held, the tunics covering the tumor were dissected down to the capsule, and the cord exposed. A strong piano string was placed round the cord two inches from the tumor, and held by the forceps; the cord was then cut across about one inch from the tumor and it appeared normal, but it was evident at once that the lower end of the hernial sac, which was adherent to the surface of the tumor over a space as large as half a dollar, had been cut across with it. The bloodvessels were ligated with catgut, the wound in the peritoneum was united by continuous catgut suture, the irregular portion of redundant scrotum was cut off with the scissors, a drainage-tube was introduced, and the wound was closed with sutures of carbolized silk, sixteen to twenty in number. Iodoform peat-bags and absorbent cotton were used in the dressing. The patient was discharged from the hospital cured, November 13th. The hernial protrusion was diminished in size, and was retained by a truss. The tumor weighed three and a half pounds. It had been examined by Dr. Satterthwaite, who reported that it was a composite growth, consisting chiefly of ordinary fibrous tissue, to a less extent of fatty tissue, and to a still less degree of non-striated muscular tissue. It was situated behind the cord, which was lengthened, but otherwise unaffected, and above the right testicle, which was normal, as was also its tunica vaginalis. The origin of the growth was apparently from subcutaneous connective tissue, its outer layers forming a sac that was infiltrated with lime salts over most of the surface, while where depositions were absent there were small hernial protrusions of tumor substance.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON PRACTICE.

Stated Meeting, January 16, 1883.

DR. EDWARD G. JANEWAY, CHAIRMAN.

DR. JANEWAY said that he had made a post-mortem examination on a man to-day, who had died of

ABSCESS OF THE LIVER,

in which a quart and a half of pus was evacuated, death being due to peritonitis consequent on rupture of the walls of the abscess. Previous to his death, Dr. Janeway asked the patient if he had had any hypochondriacal or melancholiacal attacks. The patient gave an emphatic negative answer. This was only one of a number of cases of abscess of the liver in which no melancholia or hypochondriasis was present. He therefore believed that these conditions existing in connection with abscess of the liver were the exception rather than the rule.

The paper of the evening was read by DR. HENRY D. NOYES, and was entitled

EYE TROUBLES WHICH MAY BE ERRONEOUSLY ATTRIBUTED TO LESIONS OF THE BRAIN AND NERVOUS SYSTEM,

The author said that the connection which exists between diseases of the eye and other parts of the body, especially with the nervous system, had come to be very thoroughly appreciated. Since it had been demonstrated that the ophthalmoscope could give evidence in regard to more distant parts of the body than the eye itself, it had been employed largely by neurologists and by general physicians. What he had to say was not in disparagement of this use. On the contrary, he thought it ought to be used more extensively than it had been in the past. His remarks were more in the shape of a caveat against erroneous deductions.

Among the objective facts which are observed in the eye with the ophthalmoscope were certain ones which were capable of misinterpretation. We look at the retina with reference to its clearness, and the condition of its bloodvessels. As to the optic nerve, it was asserted that its appearance varied greatly within normal limits, both as to its color and definition and texture. It was very infrequent that optic hyperæmia existed in acute brain troubles; it was, however, frequently present in acute troubles at the base of the brain; but in acute meningitis, or acute inflammation of the cerebral tissue, it was very rare to find evidence of its existence in the optic nerve. Changes in the optic nerve,

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when due to brain trouble, were, as a rule, the effect of chronic inflammations, or of new growths, or of interstitial changes which required a long time before they made themselves known. If, therefore, there was redness of the optic nerve, it was necessary that other symptoms should be present before this could be taken as evidence of brain disease. Intense hyperæmia of the optic nerve was shown more commonly as the result of strain, or some defect in the eye itself, than as the result of disease of remote tissues.

One change found in the optic nerve which was significant of brain disease was that of swelling. This condition of choked disks might, however, be present where there was no other evidence of active brain trouble, or the probability of latent brain trouble. In such cases the condition of the nerve should be looked upon as an anomalous one, which was occasionally observed.

The appearance of the retina varies, to a considerable degree, in different individuals. It is frequently seen to present a glistening, opaque look, especially along the line of the bloodvessels. This should not be mistaken for perivasculitis. It does not indicate that there is a condition of inflammation.

Moreover, the general illumination of the fundus varies greatly with the size of the pupil and the complexion of the patient. This could be seen by an examination of any of the figures in books illustrating the normal variations. Sometimes there is seen a bright, opaque striated surface, running out from the nerve itself, which might be mistaken for an exudation. The speaker remembered a case where he committed this error, and supposed it to be indicative of inflammation with exudation, whereas it is by no means infrequent, and denotes an imperfect development of nerve fibres; that is to say, it is a congenital condition, which has no influence upon the real function of the eye, or any bearing upon other conditions of health.

Sometimes the optic nerve is very pallid and the retinal vessels small, and there may be a shallow excavation. This condition might be supposed to be indicative of atrophy, whereas it may be only due to the general poverty of the circulation. There were many singular anomalies familiar to ophthalmoscopic investigators which might be alluded to, but, under the circumstances, they were, he thought, apart from the subject of the paper. Dr. Noyes said, however, that he desired to call attention to the fact that an experienced observer may mistake the appearance in the eye for evidence of inflammation, as had occurred in a case under his observation, in which an English ophthalmologist had supposed intracranial mischief of some sort to exist. Dr. Noyes found, after fitting the patient with appropriate glasses, to correct a marked hyperopic astigmatism, that his vision became $\frac{20}{20}$. The other eye was removed, because of a tumor within it, and the mental symptoms disappeared entirely. This was a case where the mental symptoms were undoubtedly due to the refractive error which had not been observed by the physician who had previously examined the patient.

These were some of the objective errors. Putting that subject aside, there were a series of symptoms of subjective character, which were very likely to be mistaken for troubles of the nervous system. These were principally cases of refractive error, such as hypermetropia, astigmatism, and troubles with the extrinsic muscles of either eye. This was not a new subject. Its full discussion was perhaps due more to Dr. Weir Mitchell, of Philadelphia, than to any other gentleman; but the experience which the author of the paper had with these cases, he thought, entitled him to make reference to them. Errors in refraction, as far as the symptoms are concerned, are the same as simple spasm of the accommodation without error of refraction; but the class of cases which Dr. Noyes now signalized were those where patients made very little complaint in regard to the eyes, and in some cases where there was no complaint whatever. The patient has thus impressed the physician with the idea that some other portion of the body was affected. The chief symptom which manifests itself in these cases is that of headache. The headache can be of any possible variety, and of any possible degree. It can be frontal or temporal; it can be confined to the vertex, the occiput, or even to one side of the head, although this latter variety is comparatively rare. This headache may or may not be associated with the use of the eyes. The patient may arise in the morning with a headache, or it may come on after an increase of any mental labor. Connected with the headache will be another symptom, which may be regarded as more significant—namely, nausea. It is not uncommon for nausea and headache to be associated together, nausea being present at intervals, while the headache is exceedingly persistent.

Take a case in which the patient makes no complaint of any trouble with the eyes, but speaks of severe headache, and suppose that you have occasion to examine his eyes to see if any information can be obtained in them to explain the symptom, and suppose that you find in one eye a deep degree of congestion, and in the other eye redness and opacity of the nerve, this condition might lead to the belief that these are cases of chronic meningial trouble. We might suppose that this opinion was reinforced by appearances of exudation and a fringy condition of the edge of the nerve. The same symptoms can exist without there being any refractive error.

To illustrate this point, Dr. Noyes read a letter from a physician, who had sent to him a young lady supposed to be suffering from slight spasm of the internal recti muscles, which contributed towards certain external symptoms. She complained of certain vague symptoms. She experienced a sensation of distress in sitting among persons, and disliked to look into the eyes of other people. She had loss of sleep, inability to sit, and likewise experienced a sense of mental fatigue, all of which symptoms indicated a considerable degree of disturbance of the psychic system, which was presumed to lie beyond the influence of the eyes. Hysterical convulsions had occurred, and four years previous the patient had a transient goitre. Later she fell, striking upon the end of her spine, at which point there was much tenderness upon pressure. There was no trace of uterine or ovarian disease.

Upon critical examination of this patient it was found that a large part of the cerebral disturbance was due to intense spasm of the muscles of accommodation. Under the free and vigorous use of atropia the spasm was much relaxed, but up to the present date had not been wholly overcome. The origin of this spasm was remote, and doubtless could be explained by the injury to the spine which the patient had received.

Dr. Noyes remarked in passing that he had seen not a few cases where serious ocular trouble depended upon concussion of the spine; the latter giving rise to a morbid condition of the extrinsic muscles of the eye. He said that he would take the liberty of reading a second letter in which the particular trouble was due very largely to a disordered condition of the muscular apparatus of the eye. A young woman, 32 years old, was near-sighted, and had divergent strabismus. She subsequently developed other symptoms and the question was, whether these were not due to her strabismus, the latter being supposed to be of congenital origin. She was seen some years ago by an ophthalmic surgeon, who advised no interference. During her teens

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she suffered from violent headaches. Three years ago she had an attack of melancholic insanity of a few weeks' duration, together with other symptoms. The last attack resulted from a fall upon her head. The physician made the diagnosis of primary curable dementia. The patient had chloro-anæmia, with a very marked bruit in the carotid and at the base of the heart, and there was probably also present lithæmia. The symptoms indicated the condition of impaired nutrition rather than congestion, insomnia and disturbance of vision. She now complains of buzzing noise in her ears, and has always complained of hallucinations. What is especially important is that she cannot use her eyes without pain. This, the attending physician thought, might be attributed to the strabismus.

Dr. Noyes said that the case was, in his own judgment, one in which the symptoms were to be attributed to the condition of the eye. He therefore determined upon an operation for the divergent strabismus, which resulted satisfactorily, not only in relieving the local pain, but her health, also, improved materially afterwards.

This subject of irritation as the cause of disturbance of the ocular muscles, is one that has been debated considerably, and is one about which there is not a perfect consensus. There is no difference of opinion about the disturbance of the ocular muscles. While, on the one hand, there are assertions which are not in accord with experience, Dr. Noyes was of the opinion that these muscular disturbances exert a far greater influence, not only over the functions of the eye, but also over the functions of the health in general. As an illustration of this, he took pains a few mornings since to study the symptoms of a little girl, fourteen years of age, who had been brought to him by her mother. The mother stated that the child had suffered from headache for three years, and that she had made up her mind to consult a specialist. The question was, whether to go to an oculist or a neurologist. A headache had existed for three years, and had become worse of late. When she looked hard at people they seemed to go away from her. She has a headache several days in a week, and very often wakes with it in the morning. In spite of the headache she often continues to read, as she says, for the purpose of forgetting it. The pain is principally in the occiput. A jar upon the feet, or a slight blow upon the head, is very unpleasant. In her personal appearance she is healthy. She has a slight tenderness over the supraorbital region, upon the right side. She sometimes passes her hand over her eyes, to clear away the mist. On testing this patient with prisms, he found no important muscular error, but when the child was asked to look at a finger held close up to the face, it was noticed that it was difficult for her to keep both eyes upon it; and when it was held very close, one eye would deviate to one side. The diagnosis was extreme debility of the internal recti muscles, which has given rise to the condition of headache.

The symptoms which persons who suffer from this disease have, are headache and nausea, and an inability to look continuously at an object, and pain easily aggravated by the use of the eyes. They cannot ride in the cars, or look out of the cars because it excites headache. This was a brief statement of this class of cases.

Now, how are these cases to be recognized and errors to be avoided? In the first place, errors may be committed in using the ophthalmoscope, owing to insufficient experience with it, the observer not being familiar with what is normal and what is abnormal. But it is more important, perhaps, that the instrument shall not be employed according to one method only, that is to say, by the indirect method, when the mirror is held in one hand and a lens in the other. A much more valuable mode is the direct method, which consists in the use of an instrument supplied with glasses to correct this vision of the patient as well as that of the observer, and showing whether you are dealing with a normal or an abnormal eye in regard to its refraction. With such an instrument you can get a much better idea of the appearance of the eye.

Finally, under suitable circumstances, the resort to atropia is advisable. Now, if one uses atropia in an examination of eyes for suspected brain trouble, precaution is necessary. With the ordinary size of the pupil it is necessary for the observer to have considerable expertness in order to get a correct idea of the condition of the eye. If you are to examine a patient who is liable to become blind from brain disease, and you wish to use atropine, it is proper to assure your patient that no ultimate trouble can result from its use, otherwise disagreeable feelings might be entertained on the part of the patient towards the physician. On the other hand, when the symptoms are of a subjective kind and are due to refractive and muscular errors, atropine may not only help the examination, but may remove the headache. This removal of the headache may be only temporary, permanent relief coming only after suitable optical corrections by means of glasses. The difficult refraction cases are those in which there is a considerable degree of astigmatism. In a considerable proportion of cases astigmatism complicates the refractive error. The degree to which subjective symptoms make their appearance varies greatly according to the temperament of the patient and his general condition. This is especially shown in those instances when the trouble is due to uterine disease. In muscular errors the treatment consists in fitting the patient with suitable prismatic glasses, and sometimes in the use of tenotomy, and in the treatment of remote discoverable lesions which will have an influence upon this trouble. Both refractive and muscular errors may be combined together, and sometimes in such a manner as to make the prescription of glasses exceedingly complicated.

DR. MARY PUTNAM JACOBI remarked that the subject of the paper was one that interested her extremely from a neurological, rather than an ophthalmological, point of view, although she believed it was eminently proper for one interested on the nervous side of these cases to examine into the other side, for it was a neurologist (Dr. Weir Mitchell), and not an occulist, who first called attention to this condition. It was probable that it was intimately associated with the anatomy of the part. In the cases referred to with functional disturbances of the eye, spasm of the internal recti muscles was usually found. She did not know whether or not it was the generally accepted view that this spasm of the internal recti was dependent on the close association of the optic nerve with the corpora quadrigemina. She alluded to the fact that spasm of these muscles had been induced by falling on the end of the spine. Similarly, concussion of the corpora quadrigemina and the cerebellum would serve to explain the curious symptoms of nausea and vertigo which have often been observed in these cases. She supposed that this condition might give rise to a considerable amount of psychical disturbance. Such disturbances may depend upon the constant strain produced by the blurring of the objects the individual was regarding. She thought it was very extraordinary that in insanity, associated with visual hallucinations, we did not more often find disturbances of the eyes. When she and Dr. Seguin were visiting the Hudson River State Hospital for the Insane, the latter examined all of the male patients having visual hallu-

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cinations, and found remarkably few refractive errors. She alluded to a case that recently came under her observation. The patient suffered from visual hallucinations, without any other symptoms. This condition had lasted for several years, and was due to no discoverable cause, unless to reflex uterine irritation. In that case the eyes were examined, and not the slightest trouble was found.

DR. BEARD wished to ask Dr. Noyes whether he had watched cases of the character he had described in his paper, for a number of years after treatment had been discontinued, in order to ascertain whether the relief afforded was permanent, not only with respect to the ocular trouble, but also to the general condition. A second point of much interest to him was, how to tell whether this condition of the eye was the result or the cause of the disease. He had found it impossible in any case to answer the question completely. This whole subject, it seemed to him, was to be referred to a general condition. The entire body is a bundle of reflex actions. The same statements that apply to the eyes, are applicable to the stomach, the urethra, the rectum, etc., but he had never seen a case in which permanent relief had been obtained by the use of glasses alone. The result of his observations and experience is that the relief of the local irritation was only a help, and did not serve to effect a cure independent of other treatment.

DR. PUTZEL thought that an important point had been overlooked. Stress had been laid on reflex action in these cases. He thought that there was a continual outflow of force which must cause a constant strain on the nerves, which strain would induce a condition of neurasthenia. In regard to the mode in which reflex irritation acts, that it is confined to the corpora quadrigemina, he was unwilling to admit. It seemed to him probable that it acted more generally than upon one local centre of that sort.

DR. BIRDSALL had used the method recommended by Dr. Noyes, and with a partially successful result. The patient was a boy about twelve years old, suffering from an intense headache. This was aggravated by reading, and particularly by pursuing his studies in school. The patient, when seen, was in somewhat of a maniacal condition, in which there were hallucinations, and which at times seemed to take very nearly the form of an epileptic or hysterical seizure. The mother thought the boy unconscious at times, as he would lie in a stupid state. Usually the headache was followed by a period of excitement, after which he would lie down, sleep for several hours, and wake up relieved. Glasses were ordered. The relief they afforded was very decided, for a time the patient being relieved from headaches. After a few weeks they returned at greater intervals, and he was ordered to leave school. Subsequently, on resuming his studies, the headaches again came on, but the maniacal attacks did not return for a time. In the course of a year, however, they made their reappearance, though they were less violent. After a time the patient was taken out of school altogether and sent to the country. In the course of a few months he recovered his health entirely, and was now apparently a perfectly well boy. Dr. Birdsall was inclined to believe that the trouble, in this instance, was not due to any disease of the eye, but was caused rather by the condition of his general nervous system. He had, moreover, seen similar cases in which similar attacks had been relieved by correction of errors of refraction. He thought the condition referred to ought not to exist if the nervous system was in a healthy state.

DR. JANEWAY suggested that the class of cases alluded to by Dr. Beard was not the same as that alluded to by the author of the paper, and that they were undoubtedly due to error in the development of nervous tissues.

DR. WEBSTER testified to having seen many cases permanently relieved by the correction of error of refraction. Dr. Birdsall's case called to mind the difficulties that were sometimes met in treating these cases. In prescribing glasses it was proper first to order those that would correct *only the manifest* hypermetropia. Such would afford relief for a time, and in some cases proved to be all that were necessary. If symptoms begin to return the eye should be tested again, and another pair of glasses prescribed, which would, in all probability, be found to give permanent relief. If not, by renewing the glassses every six months all the hypermetropia would be finally corrected.

In closing the discussion DR. NOYES testified in most positive terms to having seen many cases permanently relieved by simply prescribing appropriate glasses.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, January 11, 1883.

THE PRESIDENT, JAMES TYSON, M.D., IN THE CHAIR.

DR. E. T. BRUEN presented a

SMALL TUMOR OF THE HEAD OF THE PANCREAS,

about two and a half inches in diameter and closely adherent to the common bile-duct. The growth is of a colloid nature, but its histological character is unsettled by microscopic examination. There were no secondary deposits in any other viscera, as is the rule in colloid growths. The patient was a male, æt. about 65 years, who, for two years prior to death, had intermittent attacks of jaundice, attributed to catarrh of the biliary duct. The case was under observation for two months. At first the symptoms of chills and fever led to treatment for malaria, but as the jaundice gradually deepened, treatment for the supposed catarrhal state of the bile-duct was instituted. The futility of a well-directed and usually successful treatment was the special indication of some more substantial cause. Hepatic trouble or biliary calculi were readily excluded, but there was nothing to fasten suspicion on the pancreas. There was constipation with clay-colored stools. There was febrile movement of hectic type—the so-called hepatic fever, accompanied by irregular chills. Intestinal indigestion was not marked. Indeed, without exception, the negative results of the clinical record are of the most discouraging character. The case is presented because each case of pancreatic disease ought to be recorded, so that many cases viewed collectively may contribute to the clearness of a future distinct picture of pancreatic disease.

DR. FORMAD said that he had notes of the autopsies of five or six cases of cancer of the pancreas, with marked jaundice. It seemed to him that the jaundice was most persistent in primary pancreatic carcinoma from pressure on the bile-duct. He did not think that the tumor just presented was carcinomatous, as there would then probably have been secondary growths in the liver. The growth was probably a cystic colloid.

DR. BRUEN called attention to some forty cases of jaundice due to primary carcinoma of the head of the pancreas, lately reported by another observer, from which it was demonstrable that jaundice was an invariable symptom of primary hard carcinoma of the head of the pancreas, while it was uncommon when the disease was secondary or affected other parts of the organ.

DR. JAMES TYSON then presented a specimen of

DIAPHRAGMATIC HERNIA,

from a German about 27 years of age, who had been ailing since February, 1878, when, stretching himself,

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his wife suddenly pretended to tickle him. He quickly threw down his arms, and at that moment felt a sensation of pain on the left side in the neighborhood of the heart. At the same time he felt faint and cold. In five or ten minutes these sensations passed away, but he remained very much frightened. When first seen by Dr. Tyson, in June, 1880, he could not even walk across the floor without becoming completely out of breath, but he said he was not short of breath when the accident first occurred. He had also a peculiar puffing expiration which did not occur, however, with every act of expiration, but once in four or five. There was no cough. Physical examination revealed, on inspection, almost total absence of movement of the chest-wall in the upper half, the respiration being almost purely abdominal. The upper percussion border of the heart corresponded with the junction of the third rib with the sternum, and the right border with the middle of the sternum. The apex beat was in its normal position, but was more diffuse than in a strictly normal state. Pulmonary percussion appeared normal, except below the left scapula, where resonance was less than in the corresponding situation on the right side. Vocal fremitus was impaired over the whole of the left lung. There were no abnormal cardiac murmurs. He was treated at various times with digitalis, bromide of potassium, chloral, tonics, etc., and even a blister was put over his heart, with the view that there was some cardiac, or pericardial affection, although the physical signs were wanting. There was no improvement, although at times the dyspnœa, which was the most distressing symptom, seemed sometimes less. His death occurred December 15, 1882, from obstruction of the bowels. At the autopsy it was ascertained that about 20 inches of the large intestine, with its corresponding mesentery and almost the whole omentum, had ascended through the œsophageal opening of the diaphragm into the left pleural sac, encroaching upon the space occupied by the left lung until the latter was compressed into the apex of the left pleural sac and was reduced to a cylindroid mass, about 15 centimetres in length and half as many in diameter. There was no hernial sac, the opening being that for the œsophagus. The case was, therefore, technically one of hernia diaphragmatica spuria. The heart was displaced to the right, but was otherwise normal; the liver was slightly fatty, but the other viscera were normal. It is not unlikely at the moment referred to in the history, when the patient threw down his arms, that a small portion of the omentum or mesentery slipped through the œsophageal opening, and that subsequently and more or less gradually the vacuum tendency of the pleural sac in each act of respiration caused the remainder of the mass to be drawn in until the entire cavity was occupied. This accounts for the fact that there was no dyspnœa at the beginning, but that it gradually increased as the thoracic space was intruded upon. In vol. 81, 1882, of *Virchow's Archiv*, will be found an exhaustive article on Diaphragmatic Hernia, in which 291 cases are collated. In a somewhat hasty examination of this paper, Dr. Tyson has been unable to discover a single case so long under observation as this—nearly four years. Many cases were discovered at the autopsy and had been unsuspected, others were congenital, and others were traumatic.

DR. BRUEN asked if there had been any hiccough? If so, was there any dysphagia with solid food? Finally, did the physical signs suggest pneumothorax?

DR. ROBERTS made some remarks with reference to the diagnosis and to the possibility of laparotomy in similar cases. He also asked whether the symptoms just preceding death were those of strangulation.

DR. DAVIS referred to thirst as a prominent symptom according to Lawrence.

DR. TYSON replied that Dr. Formad had told him that there was decided hiccough. There was no true tympany, with the absence of the vocal fremitus. Nothing gave rise to any suspicion of its true nature. Thirst was marked. There was no dysphagia.

DR. J. H. MUSSER then presented the specimens from a case of

ULCER OF THE STOMACH IN THE ANTERIOR WALL; ADHESIONS TO THE ABDOMINAL WALL; HEMORRHAGES AND PAIN; DEATH FROM MORPHIA HABIT.

J. J., aged 71 years, millwright. Fourteen years before his death he was attended for hæmatemesis occurring after three days of nausea. Over a pint of blood was vomited, and considerable was discharged by stool the next day. In ten days he returned to work and enjoyed good health for two years, with the exception of occasional attacks of indigestion. Then a recurrence of nausea, followed by a profuse discharge of blood per anum, occurred. He made a full recovery, but pain after eating was now noticed. Two years subsequently he bled very much from a wound of the foot; was much prostrated thereby. This was succeeded by severe pain after eating, with marked epigastric tenderness. The constant use of narcotics alone gave him relief. November, 1873, he was again under treatment for gastric ulcer without any avail, save when he exhibited narcotics. He resorted to the use of morphia, and continued its use during the remainder of his life. Change of diet did not influence the pain, and he partook of a laborer's fare. In 1877 a small tumor to the left of and several inches above the umbilicus, hard, tender, and apparently involving the abdominal wall was discovered. For several years he worked in a country sawmill, using one drachm of morphia a month. Heavy lifting aggravated his pain. In August, 1882, the patient took to his bed. Death took place. The only anatomical alteration noted at the autopsy was the change in the stomach. The organ was enlarged and contracted (hour-glass) towards its fundus. The anterior wall, one-third of the distance from the fundus, and at the point of constriction, was adherent to the abdominal parietes to the left of the median line, three inches above the umbilicus. Opposite to the point of adhesion in the mucous membrane there was a small ulcer two lines deep and six in diameter, with clean-cut edges, a healthy floor, and surrounded by cicatricial tissue for a radius of one inch. Undoubtedly the ulcer would have healed entirely had not the morphia habit cut off the patient. Dr. J. H. Musser thought that it was plausible to suppose that the first hemorrhage, taken with the profuse foot hemorrhage, was due to the patient having been of an hemorrhagic diathesis, and that the second gastric hemorrhage was from the same cause, and was attended by a hemorrhagic infarct, with subsequent development of the ulcer. Especially is this possible, as it was only after the second hemorrhage that pain occurred, and this symptom is never absent, "except in cases which run a rapid course" (Da Costa).

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

DRS. WILLARD PARKER and FRANK H. HAMILTON are doing well. The former has suffered for some months from a disease of the urinary organs connected with advanced life, and his condition has been a troublesome one.

A RECEPTION TO MR. F. SEYMOUR HADEN, OF LONDON, AND TO MEMBERS OF THE NEW YORK ACADEMY OF MEDICINE is to be tendered by the Presi-

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dent and Vice-presidents of that Society, upon the evening of February the 10th, and the invitation has been extended to all to "Join in the Loving-cup," that relic of the round-table which suggests free-boasting and convent-robbing and revelry, which are quite inconsistent with the dignity of the gray-haired solons of the medical profession of this city, whose deeds of daring are ordinarily committed with the blunt-hook, or the scarifier.

It is to be regretted, by the bye, that this body will not accept the munificent offer of the Army Medical Museum Library, and exchange some of their duplicate pamphlets and books for an equal number of rare foreign pamphlets.

THE NEW YORK COUNTY SOCIETY'S DELEGATES.—It is strongly hinted that if the medical delegates from the County Society are not supported by the delegates from the other county societies in the matter of the new Code, that next year they will refuse to go to Albany.

BALTIMORE.

(From our Special Correspondent.)

THE PREVALENCE OF SMALLPOX.—So much has recently appeared in the public prints concerning the prevalence of smallpox in this city, that a brief statement of the true history and actual extent of the disease in our midst may not be unacceptable to the readers of THE NEWS. At the outset, it may be well to state that the reports have been very grossly exaggerated, and that in no sense can the disease be considered to be epidemic. Indeed, in no single week has the mortality equalled one-half of the highest weekly death-rate from smallpox recorded in 1872–73, when we last had the scourge, and when we escaped the unenviable notoriety that we have lately acquired with less justice. Smallpox has prevailed in Baltimore at pretty regular intervals of ten years for a period dating from early in the century. The cause of this is probably to be found in the general neglect of vaccination during periods of freedom from the disease, whereby the number of susceptible individuals gradually increases, until a large proportion of the community becomes ready to be infected by the varioloid poison. From the disappearance of smallpox in the spring of 1873, in consequence of the thorough system of vaccination adopted by the Health Department, smallpox found no lodgement in the city until the closing week of 1879, and then for only a brief period. On December 27th a man was discovered at the ticket office of the Baltimore and Ohio Railroad with an eruption that proved to be that of smallpox. He was forthwith sent to the quarantine hospital.

On January 11, 1880, a man who conducted his business in the vicinity of the station, and whom the original patient (Cordes) had engaged in conversation before his detection, sickened with smallpox, was sent to the hospital, where he subsequently died. On January 13th, four children of the proprietor of a saloon in which Cordes had called upon his way to the station, developed smallpox, and on the 15th the wife of the proprietor sickened with the same disease. They were also sent to the hospital. On January 26th, a man who had worked at the saloon at the outbreak, but who had moved to another house, was attacked with smallpox and was removed to the hospital. No further development of the disease was observed in the city. On Christmas day, Cordes, the original patient, who was apparently a tramp, had called at a tavern on the Frederick Road, near the city, and shortly afterwards four persons in the house developed smallpox. These facts were reported in the *Bulletin of the National Board of Health* by Mr. A. R. Carter, the indefatigable Secretary of our own Health Board. They are interesting as showing periods of incubation in the several cases. The active measures adopted probably checked the further progress of the disease. In June, 1881, one case was reported at Locust Point, the southeastern water front, but no new cases seem to have resulted from it. The present visitation dates from November 4, 1881, when a colored child, lately arrived from Allegheny City, developed smallpox. It resided in Franklin Street, in the northwestern section of the city. Some relatives of this child carried the disease to Pine Street, in a more central location, and other inmates of the house on Franklin Street were attacked. The disease spread slowly; scattered cases reaching South Baltimore, where there is a densely crowded colored population, in January and February, 1882. The eastern section of the city was not invaded until July, when near the water front of the eastern portion, a crowded and ignorant population, composed largely of Poles and Bohemians, was attacked. The gradual advance of the disease can be realized by an examination of the mortuary reports for the months of which we have been speaking, and for the succeeding ones until the present.

DEATHS FROM SMALLPOX.—1881, Nov., 5; Dec., 5. 1882, Jan., 2; Feb., 6; March, 10; April, 12; May, 17; June, 13; July, 22; Aug., 24; Sept., 71; Oct., 63; Nov., 94; Dec., 217.

Already in August, 1882, the Commissioner of Health, Dr. Benson, appointed additional vaccine physicians, so that by Jan. 1, 1883, his force of about thirty-five physicians were busily engaged in their work. The sudden increase of mortality during the month of December, however, warned the city authorities that in order to promptly arrest the progress of the disease more active and thorough measures were necessary. The Commissioner of Health, therefore, acting under the advice of the Mayor, increased the vaccine force to over one hundred, and the work of systematically inspecting and vaccinating the whole population was forthwith begun. Already the beneficial effect of this wholesale vaccination is apparent in the diminishing number of new cases and of deaths. Of course, but little perceptible influence could be expected during the first three weeks of the month, but as the result of vaccination begins to become apparent, the outlook becomes most encouraging. Since January 1, 1883, the vaccine physicians have reported 102,800 vaccinations; these, with the public school vaccinations, and the work of the regular vaccine physicians during 1882, will amount to more than 200,000 recent vaccinations by public officers. Probably 100,000 persons have been vaccinated by private practitioners. Within a few weeks the vaccine physicians will have completed their systematic visitations, and we may confidently hope to have the smallpox entirely under control before the first of March. The returns for the weeks of the present month will exhibit the progress of the disease during the earlier portion, and the influence of vaccination, as shown in the last week's returns.

Mortality for smallpox for the week ending January 6, 79; January 13, 83; January 20, 92; January 27, 75. There were reported for the week ending January 12 (new cases), 264; January 20 (new cases), 296; January 27 (new cases), 256. There remain (January 27) 469 cases of smallpox in the city, in 398 premises, as shown by the records of the Commissioner of Health.

It will thus be seen that, even at the worst, our condition has been greatly exaggerated by report, and that we have suffered less from smallpox than other cities, about which no excitement has been raised. It is too early yet to expect the full effects of general vaccination to be manifested, but there can be no doubt that we are rapidly becoming a well-vaccinated community,

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and that a few weeks will witness the complete disappearance of the scourge from our midst. Indeed, we already see the beginning of the end. Devices to escape detection are numerous and ingenious. Not many cases, however, remain concealed, since the returns of physicians, the inquiries of the public, the jealous watchfulness of neighbors, investigations of sanitary inspectors, and the fear of the law bring most cases to the knowledge of the authorities.

WASHINGTON.

(From our Special Correspondent.)

NATIONAL BOARD OF HEALTH IN CONGRESS.—On January 26th, Mr. Harris, from the committee to investigate and report the best means of preventing the introduction and spread of epidemic diseases, reported the bill (S. 2259) with the recommendation that it pass. The bill consists of three sections, the first repealing Section 10 of the Act of June 2, 1879, which limited the operations and duration of that Act to the term of four years, as also that clause of the Appropriation Act of August 7, 1882, which confined the operations of the Board to cholera, yellow fever, and smallpox; the second rendering available for the work of the Board the unexpended balances of the appropriations heretofore made on its behalf, which lie to its credit on the books of the Treasury, amounting to about $124,000; and the third, authorizing the Board to use, of its unexpended conditional appropriations, the sum of $100,000, or so much thereof as may be necessary in the event of an epidemic during the fiscal year ending June 30, 1884.

Mr. Harris accompanied the bill with a report, which was ordered to be printed. The report discusses the action of the Board during the yellow fever epidemic of 1879, showing that the disease was actually stamped out in New Orleans, and confined to the limits of Memphis, and that "instead of the general demoralization and panic, with suspension of business, trade, and commerce, which pervaded the country in 1878, commerce and communication with the infected cities were REGULATED, NOT STOPPED, or even retarded to any considerable extent, and the general business of the country went on in its usual methods, and through its usual channels, without serious interruption. . . . In the opinion of the committee, the Board has accomplished much, and is capable of accomplishing highly important results of great benefit to the country; results which can be accomplished by no other agency."

The report adverts to the power of Congress to regulate commerce in respect to the importation of contagion as well as in respect to the importation of other things, such as of adulterated or impure drugs or medicines; but the committee does not deem it necessary to attempt to draw the line, or define sharply, exactly where the power of Congress to regulate commerce ends, and the legitimate exercise of the police powers of a State begins, as the act which the bill reported proposes to perpetuate does not conflict, or in any way interfere, with any State or municipal board of health, or its rules and regulations.

The report concludes as follows:

"If it be admitted, as it is believed all must admit, that the action and operations of the Board even tend to the preservation of life and health to any, however small the extent, such fact makes it eminently worthy of our support, and, in the opinion of the committee, it should be sustained with such powers and means as will enable it to perform its functions fully, promptly, and efficiently.

"When the memories of the fearful ravages of the epidemic of 1878 were fresh, both houses of Congress were ready to appropriate, and did appropriate, all that the committee asked for the purpose of endeavoring to find, if possible, a means of preventing the recurrence of this terrible scourge; but as the memories of the hundred thousand sufferers and the twenty thousand new-made graves of that period are fading from our minds, the committee has experienced more or less of difficulty in obtaining the appropriations necessary to enable the Board to perform the important duties which devolve upon it, and, indeed, found it impossible, at the last session, to obtain adequate appropriations.

"The practical question, as it appears to the committee, is, the country being now free from yellow fever and cholera, shall we use the necessary means to keep it so, or relax into indifference, withhold the powers and the necessary means to prevent their importation, and await the outbreak of another epidemic, which will cost the country hundreds of millions of dollars and thousands of the lives of our people, to awaken us to the importance of preventive measures, in which the committee believes we can find absolute security?"

NEW ORLEANS.

(From our Special Correspondent.)

POISONING BY CHLORAL.—A few days ago the daily papers reported a death from poisoning by chloral hydrate. In this case it is probable that the overdose was accidentally taken, as it was alleged that the victim was in the habit of using it to produce sleep. I do not know that there is any information in regard to the amount actually ingested.

Some days before this event, a case of poisoning by the same agent was admitted to a ward in Charity Hospital. The circumstances were as follows: A young gentleman took, with suicidal intention, a single dose of one hundred and sixty grains. When brought to the hospital, probably two to four hours after ingesting the drug, he exhibited the usual symptoms of contracted pupils, cool surface, and feeble pulse. He was treated with stimulants and warmth, and was promptly and completely relieved. Mr. Michinard, the intelligent ward student who conducted the treatment, administered coffee and carbonate of ammonium, but did not resort to strychnia.

Some time since a patient of a well-known practitioner here took ʒij of chloral hydrate at one dose, with no other effects than an uninterrupted sleep from 8 P. M. until 7 A. M.

Only one well-authenticated case of death from chloral hydrate has occurred in Charity Hospital. In this case the physician prescribed small doses to be repeated at stated intervals. By some means the patient got the bottle in his possession and repeated the doses so frequently that death occurred before attention was attracted to any unusual symptoms.

NEW YORK STATE MEDICAL SOCIETY.—The annual meeting of this Society will be held at Albany on Tuesday, February 6th, and it promises to be very largely attended, great interest centring in the Society's action in reference to the new Code which was adopted last year without previous notification to the members.

THE ARMY APPROPRIATION BILL, as reported to the Senate, abolishes the office of Assistant Surgeon-General, and appropriates $15,000 for the purchase of books for the Army Medical Museum.

THE NEW YORK COUNTY MEDICAL SOCIETY held a special meeting, which was very largely attended, last Monday evening. The meeting was called to obtain an expression of opinion from the Society in

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reference to the new Code. DR. D. B. ST. JOHN ROOSA offered the following resolution:

Resolved, That the Medical Society of the County of New York approves of the amendment to the By-laws of the Medical Society of the State of New York, adopted at the annual meeting in February, 1882, and that we indorse the system of Medical Ethics therein substituted for the former one, especially because it leaves the matter of consultation to the discretion, the honesty, and the humanity of the individual practitioner. And, although we decline to instruct our delegates to the State Society, we respectfully recommend to our representatives that they labor for the further simplification of the system of Medical Ethics until it shall not contain specific rules for the regulation of professional etiquette, but only authorize procedure against conduct plainly unworthy of a physician and a gentleman.

After a spirited discussion, in which Drs. Roosa, A. H. Smith, C. R. Agnew, and Fordyce Barker advocated the resolution, and Drs. Austin Flint, Sr., J. T. Adams, Gerrish, and Dwyer opposed it, the resolution was adopted by a vote of 147 to 60 against it.

BOSTON QUARANTINE REGULATION.—An order of the Board of Health, dated January 25th, requires that on and after that date, all vessels arriving at that port from Baltimore, Md., shall stop at quarantine for examination by the port physician, and that all persons on board not protected from smallpox by recent successful vaccination or revaccination or previous attack of the disease, shall be vaccinated or subjected to a quarantine of observation. No vessel arriving from Baltimore shall proceed, nor shall her cargo, or any part thereof, be discharged, nor any person be allowed to go on board or to leave her while in quarantine, without the written permit of the port physician, who is authorized and instructed to take such measures with regard to the vessel as, in his judgment, the health of the city may require.

BANQUET OF THE ALUMNI OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—The twelfth annual banquet of the Alumni of the Medical Department of the University of the City of New York took place at Delmonico's on Wednesday, January 24th. Dr. T. R. Varick, of Jersey City, occupied the chair, with the Chancellor of the University, Rev. Dr. John Hall, on his right. At a business meeting held before the dinner, the following officers were elected:

President.—Dr. A. E. MacDonald.

Vice-Presidents.—Drs. W. A. Hammond, Gouley, W. E. Ford, S. J. Clark, G. C. Jarvis, and G. J. Fisher.

Treasurer.—Dr. C. D. Varley.

PHYSICIAN IN ORDINARY TO THE QUEEN.—DR. WILSON FOX has been appointed Physician in Ordinary to the Queen in the place of the late Sir Thos. Watson, and Dr. Owen Rees has been appointed Physician Extraordinary, in succession to Dr. Fox.

THE COMMUNICABILITY OF PHTHISIS.—The Collective Investigation Committee of the British Medical Association is now collecting trustworthy evidence from the profession as to the contagiousness of pulmonary consumption.

MICHIGAN STATE BOARD OF HEALTH.—The regular quarterly meeting of the Michigan State Board of Health was held at Lansing, Mich., on January 9, 1883. The Secretary made his report of work during the last quarter. The following resolution was passed:

Whereas, This Board has long been laboring for the restriction and prevention of contagious diseases in Michigan, which depend greatly upon the existence of such diseases in other States and countries; and as this Board has been able to trace several outbreaks of diseases in this State during the past year to immigrant travel, etc., therefore

Resolved, That this State Board of Health urgently request our members of Congress to endeavor to secure the passage of a bill to appropriate $25,000 for the remainder of this fiscal year, and thereafter, at about the same rate, to enable the National Board of Health to coöperate with State and local boards of health, and quarantines, in efforts to prevent the introduction of contagious diseases into the United States, and their spread from one State to another.

The invitation to hold a sanitary convention at Reed City, some time in the spring, was accepted.

Analyses of apple-butter and of the tinned-copper such as is used to make wash-boilers, were presented. The apple-butter is often made in such "copper" boilers when they are new. The acid of the fruit attacks the tin, which often contains lead in dangerous quantities, and it is said that the tin lining is eaten off in one or two times using for making apple-butter. The analysis of the apple-butter showed distinct traces of lead and tin, and a faint trace of copper. That portion of the apple-butter in contact with the cap of the fruit jar in which the apple-butter was sent to the chemist, gave very strong reactions for zinc, doubtless derived from the zinc-cap which screws down upon the mouths of "Mason" fruit-jars. The specimen of tinned-sheet copper used in making "copper" boilers and other kitchen utensils was analyzed and the "tin" was found to contain a large quantity of metallic lead; about two-fifths of the "tin" was lead. From one square foot of such tinned surface, there was obtained the equivalent of 150 grains of metallic lead. The ordinary clothes-boiler, such as is used in our kitchens, if made of this tinned copper, would have 2⅓ ounces of metallic lead on its surface, an amount that must have a serious influence on persons who eat acid fruits and juices boiled in such a vessel. Dr. Hazlewood and Dr. Baker were requested to make an investigation into the subject of metallic poisoning by utensils for cooking and storing food.

The committee on legislation reported on an act requiring the registration of plumbers. Hon. James Heuston, M.D., Senator, spoke on the subject of the examination of new dwellings before occupancy, and the following resolution was offered by Dr. Baker and adopted:

Resolved, That the committee on legislation, etc., and the committee on buildings, public, private, etc., jointly, be requested to take into consideration the feasibility of the suggestion made at this meeting by Hon. James Heuston, M.D., for a State law requiring all plans for new dwellings to be submitted to the local board of health for approval.

The special committee on sanitary conventions reported that a sanitary convention was to be held at Pontiac, on Jan. 31, and Feb. 1, 1883. Among the subjects to be presented are, papers on the limitation and prevention of typhoid fever, the relation of the medical profession to public-health laws, on toy pistols, the dangers in dirt, and on the contamination of well-water.

The following resolutions (two of them having been passed before) were reaffirmed:

Resolved, That there should be required of all who are to begin the practice of medicine in this State an examination as to their qualifications.

Resolved, That such examinations by the State should be restricted to questions in demonstrable knowledge, as distinguished from questions of mere opinion.

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Resolved, That, as a public-health measure, these two resolutions be referred to the President and Secretary, with a request to do what they can to further the objects of the resolutions.

FRENCH SCIENTIFIC EXPEDITION.—The sum of 8,100 francs have been granted by the Municipal Council of Paris to M. GEORGES POUCHET, Professor in the Museum of Natural History in Paris, for the expenses of a scientific expedition to be made this year to the Azore Islands.

LECTURES ON SPLENIC FEVER.—DR. W. T. COUNCILMAN will deliver two lectures on "Splenic Fever, as Illustrating the Relationship of Bacterial Organisms to the Production of Infectious Diseases," at the John Hopkins University, January 30 and February 1, 1883.

NORTHERN MEDICAL ASSOCIATION OF PHILADELPHIA.—At the late annual meeting of this Association the following officers were elected for the current year:

President.—Dr. J. T. Eskridge.
Vice-President.—Dr. Henry Beates, Jr.
Recording Secretary.—Dr. J. G. Heilman.
Treasurer.—Dr. L. Brewer Hall.

ETIOLOGY AND PATHOLOGY OF TUBERCULOSIS.—DR. FORMAD, of the University of Pennsylvania, has accepted the invitation of the Clinical Society of Maryland to deliver a lecture on the above subject on February 2, 1883.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending January 20, 1883, indicate that diphtheria, erysipelas, measles, diarrhœa, typhoid fever, bronchitis, influenza, pneumonia, and tonsillitis have decreased in area of prevalence. There was no marked increase in any disease reported.

Including reports by regular observers and by others, diphtheria was reported present during the week ending January 20th, and since, at 19 places, scarlet fever at 21 places, and measles at 10 places. Smallpox was reported at Royalton, Berrien County (3 cases), January 17th.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 22 TO JANUARY 29, 1883.

WATERS, WILLIAM E., *Major and Surgeon.*—Detailed as member of Army Retiring Board to convene at Fort Porter, Buffalo, New York, February 2, 1883.—*Par. 1, S. O. 21, A. G. O., January* 25, 1883.

HEIZMAN, CHARLES L., *Captain and Assistant Surgeon.*—Will be relieved from duty in the Department of the Columbia, and ordered to report to the Commanding General, Department of the South, for assignment to duty.—*Par. 10, S. O. 20, A. G. O., January* 24, 1883.

KILBOURNE, H. S., *Captain and Assistant Surgeon.*—Leave of absence for one month, with permission to apply for an extension of two months, is granted.—*S. O. 218, Department of Dakota, December* 21, 1882.

PRICE, CURTIS E., *Captain and Assistant Surgeon.*—Detailed as member of Army Retiring Board to convene at Fort Porter, Buffalo, New York, February 2, 1883.—*Par. 1, S. O. 21, A. G. O., January* 25, 1883.

SKINNER, JOHN O., *Captain and Assistant Surgeon.*—Will report in person, at the expiration of his present leave of absence, to the Surgeon-General for duty in his office.—*Par. 10, S. O. 20, A. G. O., January* 24, 1883.

TAYLOR, MARCUS E., *Captain and Assistant Surgeon.*—Will report in person, at the expiration of his present leave of absence, to the Commanding General Department of the East, for assignment to duty.—*Par. 10, S. O. 20, A. G. O., January* 24, 1883.

WOOD, MARSHALL W., *Captain and Assistant Surgeon.*—Will be relieved from duty in the Department of the East, at the expiration of his present leave of absence, and will report in person to the Commanding General, Department of the Columbia, for assignment to duty.—*Par. 10, S. O. 20, A. G. O., January* 24, 1883.

WOOD, MARSHALL W., *Captain and Assistant Surgeon.*—At expiration of present leave of absence, relieved from duty in the Department of the East.—*Par. 1, S. O. 15, Department of the East, January* 26, 1883.

WYETH, M. C., *First Lieutenant and Assistant Surgeon.*—Is relieved from duty at Fort Snelling, and will proceed to Fort Stevenson, Dakota Territory, and report to the Commanding Officer of that post for duty.—*Par. 1, S. O. 15, Department of Dakota, January* 18, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, OCTOBER 1 TO DECEMBER 31, 1882.

BAILHACHE, P. H., *Surgeon.*—Present detail continued until further orders, October 6, 1882. To proceed to Louisville, Kentucky, as inspector, October 13, 1882. Granted leave of absence for thirty days, November 10, 1882.

VANSANT, JOHN, *Surgeon.*—Granted leave of absence for twenty days, November 18, 1882.

HUTTON, W. H. H., *Surgeon.*—To proceed to Louisville, Kentucky, and assume charge of the Service, October 7 and 14, 1882.

MILLER, T. W., *Surgeon.*—To continue at present station until further orders, October 6, 1882.

WYMAN, WALTER.—To inspect keepers and crews of the Life Saving Service, October 5, 1882.

LONG, W. H., *Surgeon.*—To proceed to Detroit, Michigan, and assume charge of the Service, October 7 and 14, 1882.

MURRAY, R. D., *Surgeon.*—Having returned from service in the yellow fever epidemic in Texas, to report in person to the Surgeon-General, M.-H. S., December 4, 1882. Granted leave of absence until February 28, 1883, December 19, 1882.

FESSENDEN, C. S. D., *Surgeon.*—To proceed to St. Louis, Missouri, and assume charge of the Service, October 7, 1882.

PURVIANCE, GEORGE, *Surgeon.*—To inspect keepers and crews of the Life Saving Service, October 21, 1882.

SAWTELLE, W. H., *Surgeon.*—To proceed to New York, New York, and assume charge of the Service, October 7, 1882.

AUSTIN, H. W., *Surgeon.*—To inspect keepers and crews of the Life Saving Service, October 5, 1882.

FISHER, J. C., *Passed Assistant Surgeon.*—Present detail continued until further orders, October 6, 1882. To proceed to Alexandria, Virginia, as inspector, October 21, 1882.

HEATH, W. H., *Passed Assistant Surgeon.*—Granted leave of absence for fourteen days, December 28, 1882.

PORTER, F. D., *Passed Assistant Surgeon.*—To inspect keepers and crews of the Life Saving Service, October 5, 1882. To proceed to Evansville, Indiana, for temporary duty, November 21, 1882. To proceed to Charleston, South Carolina, and assume charge of the Service, December 21, 1882.

O'CONNOR, F. J., *Assistant Surgeon.*—To proceed to Norfolk, Virginia, for temporary duty, October 14, 1882. To rejoin his station (Detroit), November 4, 1882.

WHEELER, W. A., *Assistant Surgeon.*—Relieved of duty at Charleston, South Carolina, and placed on waiting orders, December 22, 1882.

ARMSTRONG, S. T., *Assistant Surgeon.*—To examine keepers and crews of the Life Saving Service, October 5, 1882.

BENNETT, P. H., *Assistant Surgeon.*—To examine keepers and crews of the Life Saving Service, October 5, 1882.

AMES, R. P. M., *Assistant Surgeon.*—Granted leave of absence for twenty-one days, November 23, 1882.

DEVAN, S. C., *Assistant Surgeon.*—To examine keepers and crews of the Life Saving Service, October 13, 1882. To inspect unserviceable property at the San Francisco Marine Hospital, October 20, 1882.

KALLOCH, P. C., *Assistant Surgeon.*—To inspect keepers and crews of the Life Saving Service, October 5, 1882.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, FEBRUARY 10, 1883. NO. 6.

ORIGINAL LECTURES.

SOME OF THE PERILS TO LIFE FROM PREVENTABLE DISEASES.

The Anniversary Address before the Medical Society of the State of New York, at the Seventy-seventh Annual Meeting. Delivered at Albany, February 7, 1883.

BY HARVEY JEWETT, M.D.,

OF CANANDAIGUA, N. Y., PRESIDENT OF THE SOCIETY.

GENTLEMEN: "Life and health may be regarded as the sum of all good to the human race." The health, happiness, and prosperity of mankind, must be intimately and inseparably connected with, and dependent upon, their sanitary condition. Upon this to a great extent rest the foundation and superstructure of our national well-being.

Men perish from bad air, impure water, and unwholesome food, because they are ignorant of that which constitutes the danger in these essentials of life. They prefer to be governed by their appetites and passions, rather than to be controlled by reason and hygienic laws that must be obeyed, or the penalty of disobedience be incurred. Our occupation would be diminished in an essential degree if the art of preventing disease was thoroughly understood and universally practised.

The people are slow to apprehend the dangers that arise from trivial causes and from habits of life in which they have indulged for years, because they are unable to trace any direct connection between obscure and indirect causes and positive results. They are also unwilling to accept the fact that disease and death may result from their own carelessness and uncleanly practices. The excessive civilization of modern times, the æstheticism of the age, have blinded our eyes and perverted our judgment, and led us astray from the habits of primitive times that gave our ancestors more vigorous constitutions and more stalwart frames than we of this generation can boast.

The subject is one in which all are interested and intimately concerned, and I rejoice to know that competent medical men are making the most scrutinizing investigations in relation to sanitary questions, and recording the fruits of their labor for the benefit of the people. Never before in the history of this country were the people and the profession so much aroused to a sense of their situation and danger, and an earnest seeking after a radical reformation in relation to the practical application of knowledge to the affairs of life. I trust that the time is not far distant when a large class of diseases which now afflict the human family will be eradicated, or so far mitigated in their severity and danger, as to be comparatively harmless.

There are some conditions which greatly affect the health of a community over which sanitary work has little or no control. The temperature and moisture of the air greatly influence the health of the people. Sudden and marked variations in temperature, excessive heat with humid atmosphere, enfeeble the system, diminish the vital force, and render the individual susceptible to the influence of any prevailing epidemic. But it is not with these agents that we are to deal in endeavoring to check the progress of disease, inasmuch as they are largely beyond the reach of human intervention. It is to certain combinations of heat, moisture, and animal or vegetable decomposition, which occur either in the course of nature, or more often as a sequence to man's careless and slovenly habits, that we are to look for the conditions, even though we may not always say the cause, of disease.

The spirit of scientific medicine is, indeed, progressive. Unbaffled by the records of previous failure, and undaunted by that which seems to be the impenetrable darkness of mystery, the search into the etiology of disease continues; and gradually as persevering efforts are rewarded by success and light, though it be but dim and partial, illumines the search, preventive medicine makes more urgent demands upon the scientific capacities of the physician.

Far more is demanded from the practising physician of to-day than was requisite a quarter of a century ago. Then, a common school education, a fair knowledge of anatomy and physiology, a smattering of chemistry, an acquaintance with the principles of medicine and surgery, and, above all, a familiarity with the drugs of the pharmacopœia, were the endowments requisite for a well-qualified practitioner of medicine. Men thus equipped may even to-day be of great service in their profession, recognizing with acuteness the nature of disordered bodily conditions, and applying, with rare skill and excellent common sense, the remedy suitable for each case.

But there is another work which cannot be accomplished by a few, even though they be energetic and earnest, but which must devolve upon the general practitioner, especially in the country districts.

Our National and State boards of health have done in the past, and are doing at present, most excellent and telling work, and we look with just pride especially upon that achieved by our own State board. Yet to be successful in their work of heralding danger and preventing disease, the State boards of health must be backed by efficient town boards, and especially, I claim, by the efforts of individual practising physicians. A difficulty arises here, and it is to this point that I wish to draw special attention; viz., to the inability of the majority of practising physicians to properly advise their patients and patrons in sanitary matters, owing to their ignorance of the first principles of sanitary science.

The finger of investigation points to certain defects in drainage, water supply, or ventilation, as the prolific source of disease. How many physicians are able to recognize these defects with certainty, or to give competent advice for their remedy? How many health officers, especially in the smaller settlements, are versed in the principles of natural philosophy which lie at the foundation of all drainage and ventilation? Surely the work of inquiry into the etiology of disease demands that the investigator be equipped with more than a surface knowledge of chemistry, and be more than a novice in the use of the microscope and its valuable accessories.

I claim also, that the physician, who is not only to minister to the wants of the sick, but in his nobler work, to protect the health and lives of others, should possess as a foundation for the superstructure of his strictly medical education, an accurate and serviceable knowledge of the principles of chemistry, natural philosophy and the natural sciences generally. This education should, and can be made preliminary to the work of the professional school. That many physicians graduate with this needed preparation, and thoroughly

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equipped in all respects, is a matter for congratulation. But those do not compose the rank and file of the profession in this country to-day. The demand is for more thoroughly educated medical men and women, and that demand must be met by men taken, not directly from the farm, the work-shop, and the common school, but by those favored with the rigid mental discipline of academy or college, and well grounded in the principles of natural science.

Right here, I suggest that general practitioners thus thoroughly educated, and mingling as they do, with all classes of people, seeing as they do, every form of disease, are the sources from which are to flow into the treasury of knowledge that vast accumulation of carefully recorded facts, from which great truths are to be deduced. Only minds well trained are equal to the great task of correctly observing and noting the phenomena of disease and its varied surroundings. The advantage to medical science, were all the rich stores of experience already gained by workers in this great field given to the world through the medical journals, instead of being buried with the possessor, as is too often the case, cannot be over-estimated. How much greater would that gain to medical knowledge be, were the observers of these phenomena trained to more exact habits of noticing and recording their experience. Particularly in country districts, are the opportunities unusually favorable for studying the laws which govern the origin and spread of contagious and infectious diseases, because of the comparative isolation of the inhabitants, and hence the more urgent need of better educated medical men, who, because thus better prepared, will be more desirous, as well as better able to assist in the contest against preventable disease.

It would be impossible to discuss the perils to life from preventable diseases and protection from those perils without briefly referring to that theory of the origin and spread of contagious maladies now so widely known as the germ-theory. Certain minute vegetable forms of life, known as bacteria, of various forms and possessing the power of rapid multiplication, and of being carried in the atmosphere as spores, are to-day claimed by many competent observers to be the active agents in the causation and spread of contagious and infectious diseases. So captivating is the thought of accounting for disease in this simple way, that some observers, as well as some who are mere theorists, have, I fear, suffered their enthusiasm to get the better of their cool, calculating judgment. Ever conflicting and positive statements, which are the fruit of carefully conducted experiments to determine the relation of this or that particular form of bacterium to this or that disease, continue to bewilder the mind of the conservative medical man, as well as to mystify the masses of scientific thinkers outside the ranks of the profession. At present it becomes us to receive with caution the reported results of all such experiments, and the theories formulated therefrom, and while we accept some things as proven relative to this theory of vegetable disease-germs, to bear in mind that much which is claimed by some, may still be fairly placed in the realm of the unproven, though perhaps eminently probable. The importance of determining whether these vegetable germs found in connection with certain contagious diseases are the cause or effect of the diseased condition cannot be over-estimated, especially as we enter upon the domain of preventive medicine.

In turning our attention to that which most threatens and imperils human health, if we permit ourselves to be guided by a prevailing public sentiment, we shall not hesitate long in attributing to defective sewerage a large share of the responsibility. So wide-spread has become the impression that sewer gas, so called, is at the bottom of most of the ills that flesh is heir to, that the mere words have coupled with them a deathly meaning. As civilization advances and the masses of our population congregate in cities, a system of underground sewers has supplanted the primitive vault, while the water-closet and the stationary washstand connected therewith have become an almost indispensable convenience. These underground sewers being intended to receive and convey away not only the house sewage, but also the rain-wash of the streets, have a capacity equal to the heaviest rain-falls. We have, then, a subterraneous cavern of great length and with numerous branches of smaller size, the floor of which is partly covered, or at certain times in the day entirely covered by a slowly moving stream of such horrible filth as is sickening to contemplate. The air filling the space above being, as is usually the case, confined, becomes surcharged with the emanations from this decomposing mass, and is what is known as sewer gas, or, more properly, sewer air. Its composition, as is well known, is variable; ammonia, sulphuretted hydrogen, carbonic acid gas, and various organic impurities being its main ingredients. That this gas, not even betraying its presence by an odor, is oftentimes an uninvited guest in our dwellings no one will deny; just how often no one can say. Strange to say, however, the door is frequently left open for its entrance, though heavy bolts guard against other dangerous intruders. Old and defective house-pipes and unserviceable though well-meant traps not unfrequently unite the elegant chamber above with the filthy cavern below, and ventilation of sewers takes place after a fashion not altogether desirable.

Gaining entrance, what are its effects, if any it has, upon the inmates of the house? To one reading or hearing of the direful effects of sewer gas in causing or spreading diphtheria, scarlet fever, and typhoid fever in our crowded cities, it might not unnaturally seem that, were this curse once abolished, there would be no more diphtheria and scarlet fever. Unfortunately for this theory, these scourges do flourish, and that, too, malignantly, in country districts, where—as far as can be discovered—the hygiene is good, and no sewer gas exists. It cannot be denied that filth poison even in in these cases may lurk somewhere undetected.

Further, it has not been proven that the air of sewers, when inhaled even in large quantities, has any immediate injurious effects. Plumbers and scavengers, who inhale it directly from the sewers, do not in their persons give proof of any fatal effect, nor do they, according to statistics, suffer especially from the diseases before mentioned. Exposed as they are to its influence during working hours, and emerging soon into purer air, it has been claimed, and justly too, that they are really less liable to injurious effects than those who breathe it, though more diluted, yet in the confined air of a bedroom while in the sleeping condition, when the vital forces are less resisting. Inspired in this way day after day and night after night, and especially when delicate women and children are the subjects, the effect of sewer air is to lower the vitality of the system, to predispose it to disease, to render more virulent any malady that may supervene, and to induce a feeling of exhaustion and a gradual decline of health.

It is claimed by those who support the germ theory that diphtheria and other contagious diseases are spread from house to house in sewered cities largely by the agency of this sewer air; that in this sewer air float germs which have been thrown off in the excreta of the patients; which germs, coming into conditions favorable for development in the warm and moist air of the sewer, there multiply, and are so diffused. Especially is it claimed that the conditions for the development of these germs are unusually favorable in sewers where but a small portion of the surface

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is covered by the sewage, and where arrested sewage and moisture abound. It is also claimed that these germs so multiplied have gained an additional virulence from being so propagated, and that they are even more contagious than would be the fresh excreta of the diseased person.

Pasteur has shown that the bacilli of anthrax and of fowl cholera when cultivated and exposed freely to the action of oxygen lose their virulence, and that they may be safely inoculated, producing thereby a mild form only of the disease. Grown under different conditions, viz., in a confined atmosphere, and deprived of a full supply of oxygen, these bacilli retain their original poisonous properties. It may be so with the germs of diphtheria, if, indeed, there be such, and of typhoid fever, that grown and multiplied in the confined atmosphere of the underground sewer, and deprived of a full supply of oxygen, they may become doubly poisonous.

In the present uncertain state of the evidence concerning the agency of sewers in originating or spreading disease, some reflections upon the proper action to be taken by those interested in sanitary science may not be out of place here.

First, it may be well to refresh our memory with the recorded failures of numerous investigating committees to trace, in time of epidemics of diphtheria and scarlatina, any direct connection between the favorite localities of the disease and defective plumbing. Indeed, the plumbing in such cases has been reported to be exceptionally good by those competent to judge.

On the other hand, we are in no danger of forgetting those countless reported instances where foul air is indisputably connected, in some way, with the visitations of pestilence. It is well to keep fresh in our minds also, that the breathing of foul air, especially at night, induces a condition of malaise, in which the vital forces are greatly lowered, and in which condition what might have been but a trifling ailment suddenly assumes a serious or a fatal aspect.

As has been before stated, it appears to be proven that a noxious microscopic organism may be changed to one innocuous under favorable conditions; and *vice versa*, that one innocuous may become virulent. It has been shown also that the bacteria found in the mouth of a healthy person, or one suffering from a simple sore throat, cannot be distinguished, microscopically, from those found in the diphtheritic membrane. It is quite possible that under favorable conditions, as in an atmosphere of sewer gas and in a depraved bodily condition, a simple sore throat may become malignant and fatal in its results, owing to some change in the character of the vegetable organisms. In this way it may be that diphtheria appears as an endemic.

Bearing all these facts and possibilities in mind, it seems to me that as a profession we are warranted in urging a very *safe* course to be pursued in reference to this whole subject of sewers and sewer air in dwellings. It is safe to give ourselves and our patrons the benefit of the doubt, and whether or not diphtheria and allied scourges are generated or conveyed by sewer air, it is best to give it no opportunity to poison our bodies while asleep. I do not deny that plumbing may be made secure by a suitable arrangement and ventilation of soil-pipes and traps, and by great care in the placing of house fixtures. Nevertheless, I protest against allowing any possible connection between the sewers and sleeping apartments. Let the stationary washstand be entirely, as I am happy to know it has been partially, banished from the bed-chamber. Moreover, let the arrangement of water-closets be planned with the strictest regard to separation from living or sleeping apartments, and, best of all, let them be entirely disconnected. Without committing ourselves to a belief in the theory that it is the bearer of countless disease germs, I believe that there is sufficient evidence already that sewer air does enter dwelling houses, often, too, when the assurance of the plumber has lulled to false security, and that its effects are extremely deleterious, to warrant such decided advice and action as that just advanced.

The system of separate sewerage as adopted at Memphis, when properly carried out, appears to be also far superior in a hygienic point of view to the combined system. By this arrangement the house sewage is provided for in pipes of small size and of perfectly smooth calibre, while the rainfall is carried off by surface drains. In this way may be avoided the huge vault, whose full capacity is rarely tested, and which serves as a storehouse for noxious gases.

The relation which the character of the soil selected as the site of habitation bears to the health of inhabitants has not, I think, received the attention which its importance demands. The matter of soil drainage may be carefully attended to, and no damp cellar nor defective sewerage be found to account for the devastations of disease. A dry cellar is not, however, necessarily one devoid of danger, and because dry thus rendered incapable of affecting the health of occupants. Competent observers have demonstrated that the atmosphere does not end where the earth begins, but that ground air contained in the interstices of the soil has peculiarities of its own. It has been shown that it contains a large proportion of carbonic acid gas, as well as noxious gases and organic matter in abundance which come from the decomposition of animal and vegetable substances, either beneath or upon the surface of the earth. There is, moreover, a circulation of this ground air by which it tends to disseminate itself into the external atmosphere and in a horizontal direction also. The presence of any decomposing organic body, either beneath or upon the surface of the earth, must necessarily taint this air, and the results of such decomposition thus be disseminated. The presence of cesspools, graveyards, and garbage heaps may thus not only prove deleterious to the drinking water as is generally acknowledged, but also to the ground air. This ground air obtains easy access to our dwellings, and is especially invited into them in cold weather when the warmth above makes a flue of the cellar floor, unless it be properly protected, and so the ground air is attracted upward.

If it is true that so-called disease germs do not die with the death of their victim, but survive for many years buried in the earth, this matter of ground air opens with a new interest. Pasteur asserts that he has found the germs of anthrax or splenic fever in the soil about the buried carcasses of animals which had been dead twelve years, and that with these he has reproduced the disease. It may be that other contagious diseases may retain their virulence about the body of their buried victim for some time, and be disseminated in the air or water of the surrounding earth. Is there not sufficient *possibility*, to say the least, of the truth of these assertions to warrant more care in selecting the site of a dwelling and guarding its surroundings? Does it not savor of discretion, at any rate, to see carefully to it that cemeteries do not encroach closely upon places of habitation, and that cesspools be utterly banished from the proximity of dwellings? Quite as important to consider also, is the matter of ground-water in relation to building sites. Though there be no putrescent animal or vegetable matter in the vicinity, yet the constant or occasional pressure of an oversupply of water in the soil about a dwelling is deleterious to health. Especially has a direct connection been traced by careful observers between a superabundance of ground-water and the prevalence of

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consumption in a locality. It therefore becomes a matter of no slight importance to avoid such localities if there be a tendency to pulmonary trouble, or if necessary to build thereon, to carefully drain the cellar and surrounding ground with properly constructed drains. It has been noted, and I think correctly, that the children of a household are the first to feel the deleterious influence of a damp or otherwise unwholesome dwelling-site, and that their ill-health may often be taken as the signal of danger and the index of the unsanitary condition of the neighborhood.

The watchful and conscientious family physician will be alert to discover such possible causes of disease. If he be more than a mere administrator of drugs, an acute observer of various natural phenomena, and well posted in the principles which underlie all successful drainage, he will undoubtedly succeed many times in saving or prolonging lives which otherwise would have soon been sacrificed to unsanitary surroundings.

The sanitary condition of drinking water holds a front rank among the influences which determine the healthfulness of a locality and its inhabitants. It needs no argument to prove the disastrous effect of contaminated water when taken into the animal economy. By contaminated, I mean particularly water affected by sewage and excremental filth, although it is quite possible that water polluted from other sources, as from decomposing vegetable matter, may be deleterious to health. Just as sewer air may escape undetected into living apartments, its presence betrayed by no foul smell, and meantime do its deadly work in slowly poisoning the frail bodies of its victims, so may well water be taken into the body repeatedly, the consumer never suspecting, from its odor, or appearance, or taste, that it contains the potency of disease. A water rank with the smell and taste of vegetable decomposition may be spurned as unfit for use, yet another water, though of pleasing appearance and taste, may be for that very reason more deadly in its working.

It has been proven by too many authenticated instances to admit of doubt that typhoid fever may be communicated by water into which has percolated through the soil dejecta from an infected patient, although the privy vault or other place of deposit may have been some distance away. The deodorizing properties of the earth have often availed to make such water not unpalatable. The abominable and criminal carelessness in disposing of refuse, which is so often seen by all of us among people who know better, as well as among those who do not, needs no comment. But in our larger villages of many years' standing, where there is not a system of sewerage, a condition of soil is liable to exist which is full of danger, and which, because of its gradual development, is apt to be overlooked. I refer to the continued soaking of animal and vegetable filth into the soil upon which the town is built, owing to the multiplication of cesspools and surface drains, until, after many years, the whole ground has become infiltrated with organic products of foul origin. In such a soil well water can no longer be depended upon for purity, even though there be a strict regard paid to the separation of the well from places of waste deposit. Eventually pestilence will visit such hot-beds of disease, and many theories but the right one will be advanced to explain a so-called terrible "visitation of Providence." Diphtheria and scarlet fever in such communities assume a malignant type from the first, and linger long without abating, whereas, had the hygienic surroundings been good the above-mentioned diseases might have existed, but not in so destructive a form.

Surely, the abandonment of wells as sources of drinking water in such instances will commend itself to every sensible mind as the only course to be pursued.

The utter disregard of all rules of hygiene, and even of decency, which is too frequently seen in the discharge of the refuse of a great city into the same body of water from which that city or a near neighbor receives its supply of drinking water, is beginning to receive the attention which its importance demands. A few more epidemics of disease, and large mortality lists, it is to be hoped, will secure appropriate legal enactment to control such action on the part of corporations.

Time would fail to point out the innumerable abuses which human nature heaps upon itself in the discharge of the functions of daily life. We have but referred to some of the dangers incident to foul air and foul water, and a few of the many ways in which that danger is incurred. The neglect of sunlight and exercise, improprieties both in food and dress, are all factors in causing disease of no mean account in making up the sum total of preventable diseases. It has been estimated that one-third of all the sickness and mortality in this State for a year is preventable.

No reminder is needed that pulmonary phthisis is a disease which, with lamentable frequency, is inscribed upon the death certificate as the chief and determining cause of death. Though not entirely preventable, yet I believe that thousands of lives might be annually saved were the medical profession more disposed to study the atmospheric and telluric, as well as other influences which favor its development in the predisposed, and to impress their intelligent views upon destined victims with an earnestness which should admit of no wavering as to the course to be pursued.

I would not question the correctness of certain observers who have announced the presence of a peculiar bacillus in the lungs of phthisical patients, but should hesitate to pronounce it a cause rather than an accompaniment of the disease. The affirmed contagious nature of the disease appears of minor importance and quite open to suspicion when the clinical histories of vast numbers of cases are compared. I venture to assert that there is vastly more good to be accomplished by careful attention to climatic influences and habits of life than by antiseptics and cod-liver oil with hypophosphites. So pressing does the need appear of more thoroughly educated and studious men to stand as guardians of the public safety in every village and hamlet of this vast country, that I cannot, in conclusion, but revert somewhat to the thought which found utterance at the opening of these remarks. We want men in every country district of the land, as well as in every city, who shall be worthy the name of professional gentleman. Who, in general information and culture, though mingling largely or solely with the uneducated, shall be among them and not of them, and who, by reason of the power which knowledge and mental discipline gives, shall be leaders among the people in every good enterprise, and give a dignity to and a respect for the profession of medicine which, I regret, it does not fully possess to-day. Under the present system of medical education, I fail to see a prospect for the achievement of this desirable result. So long as men are permitted to graduate from some of our most reputable medical schools, to enter the ranks of the regular profession, so poorly equipped for life-service in a profession which demands the very best of talents and preparation, we cannot wonder that quackery continues to flourish and to receive the patronage, humiliating to confess, of some who are on other subjects the most enlightened.

When the requirements for entrance upon the study of medicine in our medical schools are made vastly higher, when the teaching is better systematized and a

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longer time in preparation is insisted upon, not only will the profession rise higher in public estimation, but there will then be opportunity for the teaching of hygiene and some other departments, for example that of legal medicine, which now are as a rule sadly neglected.

Thanks to earnest workers and great facilities for education, both at home and abroad, the profession of medicine in America shows a very bright side as well as the dark one to which I have alluded. Scattered through the entire country are men at work who are shedding lustre upon their profession, and others to be numbered by the hundred, who in a quiet way are doing all that is possible to magnify their calling and to induce the respect of mankind.

When such men take the places universally of those who, it is to be regretted, by no means adorn their profession, we shall hear fewer denunciations of doctors, which we know sometimes to be too well deserved, but which reflect none the less surely upon the profession as a whole, because incurred by some unworthy member who is yet in the ranks by the tolerance both of his professional brethren and the law of the State.

No monomaniac will then be permitted, in the public prints, to flaunt his maledictions upon "physic and physicians" as "twin scourges of humanity," because of the respect which the medical profession will everywhere command. Though less in numbers, because of the necessities of the case, when preventive medicine shall have attained its destined eminence, we shall hold a prouder position, and be more than ever the benefactors of the race.

ORIGINAL ARTICLES.

PAPILLOMA OF THE BLADDER; OPERATION; CURE.

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(*Read before the Cincinnati Academy of Medicine.*)

TUMORS of the urinary bladder are of such rare occurrence and present such varied points of interest in their recognition, prognosis, and therapy, that every example is worthy of careful record. Pain, hemorrhage, and disturbances of the functions of the organ are common to many affections of the bladder, and singly and collectively are scarcely more than aids to the safer methods of diagnosis by physical explorations. Unfortunately even these, together with a most careful examination of the urine, fail to throw sufficient light into some cases in which the rendition of a positive diagnosis prior to an operation or death is simply impossible. The symptoms of calculus, neoplasms, tuberculosis, and prostatic hypertrophy are all gradually developed, and as clinical features of these affections, hæmaturia, pain in the penis, perineum and rectum, and purulent, fetid urine are frequently encountered. In all of these diseases, time brings with it a thickening of the vesical walls. If the examination of the bladder with the searcher give negative results as to the presence of a stone, and particles of a tumor can not be removed from the eyes of the instrument, the obscurity of the case is only enhanced, particularly if the rectal exploration reveals nothing more than the thickened condition of the bladder or an hypertrophy of the prostate. Even with due consideration to the age of the patient, and the presence or absence of cachexia, to the family history and inherited predisposition to one or other affection, the nature of certain—fortunately rare—cases can not be revealed. I beg leave to present the following illustrative case, which also clearly demonstrates the utility of cystotomy for the relief of urgent symptoms and as a most estimable aid towards the establishment of a diagnosis.

CASE.—In December, 1880, I was called to Union City, Indiana, to see I. M., æt. 26, who had for two years been suffering from an obscure affection of the bladder. With the exception of a slight tendency to tuberculosis the family history is good. The patient although ready to admit that he has had numerous opportunities to contract a gonorrhœa, strenuously maintains that he has never suffered from it. During the first six months of his sickness he observed a desire to urinate more frequently, and the necessity of emptying his bladder from two to four times during the night. The micturition was attended with considerable pain, particularly towards the close of the act. During the last year the pain has been constant, and has necessitated the exhibition of from one to four grains of morphia daily. The pains experienced were at first seated in the perineum and at the root of the penis. Recently they have extended to the glans and the rectum. Within a year severe hemorrhages have supervened four times, and small quantities of blood are lost weekly.

At the time of my first examination the patient was unable to leave his bed, and presented a yellowish tinge of the skin and a body greatly emaciated. The odor in the room convinced me of the existence of some grave affection of the bladder. The pain in the penis is at times so severe that nothing but firm rubbing of the part affords relief. The pain in the rectum is likewise very severe, and becomes excruciating when a hardened fecal mass is expelled. The patient finding it unavoidable to urinate every ten or fifteen minutes holds a urinal between his thighs constantly. The urine when passed is thick and fetid; alkaline in reaction, and speedily deposits a thick ropy sediment which frequently contains the formed elements of blood. The introduction of the sound was so much dreaded on account of the painfulness of previous examinations that the patient was thoroughly etherized before an instrument was used. No obstruction was encountered in the urethra. When the Thompson's searcher had entered the bladder and was rotated it revealed posteriorly and to the left a roughened condition of the bladder which was sufficiently pronounced to interfere with the complete rotation of the instrument. With the finger in the rectum, an enlargement of the prostate was found, and when a second finger was introduced the greatly hypertrophied wall of the bladder could be felt between it and the sound. A prolonged examination failed to reveal the existence of either a calculus or calcareous incrustations. Before removing the instrument, the capacity of the bladder was determined by an injection. Under moderate pressure it held a little less than four ounces.

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Early in January, 1881, the patient was brought to the City and occupied a room at the Cincinnati Hospital. During the four weeks that I had not seen him, his general condition had become worse, and his sufferings had augmented to such a degree that unless morphia was administered in one-third or half-grain doses, relief could not be obtained. Evening temperatures, followed by night-sweats had supervened, and a rather copious purulent discharge from the urethra had appeared. Repeated physical examinations failed to throw any further light upon the nature of the case. The great tenderness of the posterior vesical wall and of the prostate when palpated through the rectum, and the suffering produced by each stool led the patient to the belief that his entire trouble sprang from the lower portion of the bowel. In the absence of stone, and without the previous existence of a gonorrhœa to account for the violent cystitis which had developed, the diagnosis, it appeared to me, rested between a tumor of the bladder and tuberculosis of the genito-urinary apparatus. The urethral discharge, the marked sensitiveness of the neck of the bladder, the prostatic enlargement, the decided hectic, and rapidly increasing emaciation were strong factors pointing to the existence of tuberculous deposits about the neck and base of the organ. On the other hand, the absence of tuberculous manifestations in the lungs and in the testicles militated strongly against the presence of a primary tuberculosis of the parts involved in the disease. When tubercles are found in the mucous membrane of the bladder, they are as a rule associated with similar deposits in the vesiculæ seminales, testicles, and particularly in the kidneys. Indeed the existence of a tuberculosis limited to the bladder is so great a rarity, that I have been able to find no other instance than that of Prescott Hewett recorded.

The recurring expulsion of pure blood from the bladder, and its presence in smaller quantity in the urine at short intervals, the pain radiating from the perineum to the penis and rectum, and the inability to sweep the fundus and sides of the bladder with the beak of the instrument, were the prominent symptoms and physical signs that led to the suspicion that a vesical growth was at the bottom of the violent cystic inflammation. Nevertheless, the negative result which was obtained by resorting to Volkman's method of "bimanual exploration" of the bladder made me doubt the presence of a tumor.

Recognizing the futility of internal medication, the impracticability of washing out the bladder on account of the suffering which it entailed, and the inroads which the disease was rapidly making on the general health of the patient, I determined to resort to cystotomy in order to ameliorate his condition and to permit the removal of a neoplasm if one should be found.

Operation (Jan. 19, 1881).—The patient having been placed under the influence of ether, a large grooved staff was introduced into the bladder and the incision usually made for lateral lithotomy practised. When the bladder was opened and the finger introduced, it at once came in contact with a fleshy mass situated on the posterior wall of the viscus to the left of the median line. As nearly as could be determined by circumventing the growth with the finger, it had attained the size of a small peach. It was not in the least movable, but was firmly attached by a broad base to the vesical wall. On this account, its removal with the écraseur or wire-loop was wholly out of the question. Guided by the finger of the left hand, I was enabled to introduce one of Volkman's sharp spoons and without any considerable difficulty break down by a scraping process the tumor, which came away in shreds and in larger masses. The great friability of the tumor unquestionably added to the comparative facility with which this part of the operation was accomplished. Not until I could feel quite a distinct excavation in the place where the tumor had existed did I desist from the scraping process. It is almost needless to add, that the cutting edge of the spoon was always guided by the finger, and that the manipulations necessary to the levelling of the growth were at no time violent. The hemorrhage at the time of operation was very copious, but after its completion it yielded readily to injections of hot water.

Considering the miserable condition of the patient prior to the operation, his recovery from its immediate effects was very gratifying. During the first two days the contact of the urine with the clear surface of the wound gave rise to considerable suffering, but after granulations appeared this source of pain disappeared. During nearly two months the perineal wound remained open and the bulk of the urine discharged through it. The pain in the penis and perineum had passed away, and the desire to urinate had become less frequent. Notwithstanding frequent and copious injections made into the bladder through the perineal aperture while practicable, and later on through the penis, the urine continued alkaline for three months after the closure of the wound and the patient experienced the necessity to empty his bladder from four to six times in the course of the night. The pain in the rectum likewise continued for nearly six months after the operation and at times was so severe that I was repeatedly accused of having operated in the wrong region. The continuance of these symptoms unquestionably depended upon the delayed reduction of the inflamed mucous membrane to its normal condition, and upon the substitution of a slowly healing ulcer in the place of the tumor. Quite a year elapsed from the time of operation before the urine passed by the patient was normal in character, and before he could pass six or seven hours in continuous sleep. The tedious convalescence, which was extremely embarrassing in this case, corresponds with the experience of other operators in similar cases.

The rasping process which in this particular case answered so excellently for the removal of the growth, unfortunately excluded the possibility of any satisfactory investigation of its histological character. Examinations of a large number of particles removed by the spoon revealed the presence of numerous elongated bundles of a loose connective tissue, which were occasionally found to

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terminate in rounded-off points like those encountered in the papillomata springing from other mucous membranes, and invested upon their exterior by one or two layers of low epithelial cells. The most marked feature of the teased specimens, which were the only ones that could be obtained, was the great predominance of large capillary loops and meshes, which accounted readily for the frequently recurring hemorrhages. These factors in the histological construction of the tumor, and its non-recurrence after a lapse of two years have almost convinced me that it would properly be classed with the non-malignant fibrous papillomata. Considerable doubt may justly attach to this disposition of the tumor, since papilloma vesicæ rarely appears singly, and speedy reproduction is as much a characteristic of the vesical as of other villous growths. Thus W. Alexander[1] reports the case of a woman from whom he removed twelve fungous growths *per urethram* and was forced to repeat the procedure twice within less than two years. In a very able article upon this subject, Dr. Robert S. Hudson[1] records a case in which the bladder was found to contain eight distinct growths which might easily have been removed by écraseur, evulsion, or scraping.

For reasons that are patent, the diagnosis and treatment of vesical neoplasms must vary materially according to the sex of the individual. The dilatability of the female urethra, its close anatomical relation to the vagina, and the facility with which instruments can be introduced into it, render the diagnosis and operative treatment of these tumors in the female, a matter of comparative simplicity. Hence it is not remarkable that of the 16 cases of operations for cystic growths collected by Gross,[2] 12 were in females and only four in males. To the former number such large contributions have been made in recent years that the list that could be gathered would rather exceed than fall short of fifty. Over a year ago, Stein[3] was able to collect 23 opera-

No. of Cases.	Operator.	Age, years.	Nature of Tumor.	Mode of Operation.	Result.	Remarks.	References.
1	Crosse.	2	Multiple polyps.	Perineal cystotomy and discision.	Death.	Tumor not entirely removed.	A Treatise on the Formation, etc., of Urinary Calculi, 1835, p. 44.
2	Gersuny.	49	Sarcomatous polyp.	Perineal cystotomy.	Death.	Failed to reach the growth.	Langenbeck's Arch. f. Chir. 1872, p. 131.
3	Desault.	. .	Pedunculated fungus.	Perineal cystotomy.	Recovery.	Coexisted with stone.	Chopart, Traité des Voies Urinaires, t. ii. p. 96.
4	Billroth.	12	Myoma.	Combined perineal and suprapubic cystotomy.	Recovery.	Patient discharged on the thirty-second day.	Langenbeck's Arch., 1875, Bd. 18, p. 411.
5	Volkman.	54	Myoma.	Combined perineal and suprapubic cystotomy.	Death.	From peritonitis.	Langenbeck's Arch., Bd. xix. p. 682.
6	Kocher.	38	"Fungoid tumor."	Perineal cystotomy.	Recovery.	Modified median operation.	Centralbl. f. Chir., April, 1, 1876.
7	Humphry.	32	Pedunculated growth.	Perineal cystotomy.	Recovery.	Convalescence very tedious, with continuance of pain for two months.	Medico-Chirurgical Transactions, vol. 62.
8	Davies-Colley.	21	Papilloma.	Perineal cystotomy.	Recovery.	Continuous hemorrhages the diagnostic feature of the growth.	London Lancet, 1880, vol. ii. p. 980.
9	Berkely Hill.	63	Pedunculated growth, malignant.	Perineal cystotomy.	Death.	Disorganized condition of tumor prevented minute examination.	British Med. Journal, May 14, 1881.
10	Thompson.	29	. . .	Median perineal cystotomy.	Recovery.	Lithotrity previously performed with only temporary relief.	Royal Medico-Chirurgical Society, April 11, 1882.
11	Morgan.	65	Villous growth.	Median perineal incision.	Partial success.	Had passed gravel before operation.	London Lancet, 1882, vol. ii. p. 440.
12	Marcacci.	54	. . .	Suprapubic cystotomy.	Death.	Death from exhaustion from urinary fistulæ.	L'Imparziale, Fev. 1880.
13	Covillard.	. .	. . .	Perineal cystotomy.	Recovery.	Precise data have not been recorded.	A. W. Stein, Tumors of the Bladder, p. 72.
14	Ransohoff.	26	Papilloma.	Perineal cystotomy.	Recovery.		

[1] Brit. Med. Journal, 1878, vol. ii. p. 209.

[1] Dublin Med. Journal, vol. 67, p. 490.
[2] S. W. Gross, Urinary Organs, 1876.
[3] A. W. Stein, Tumors of the Bladder, Wood & Co., 1881.

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tions upon females practised either through the urethra or by incision through the vesico-vaginal septum.

Excepting the worse than useless, hazardous, and unsurgical attempts of French surgeons like Civiale and Mercier to crush these growths in the male bladder with the lithotrite, they were practically considered inaccessible to operative interference until the celebrated case of Billroth levelled the barriers which confined surgeons to palliative measures alone. In June, 1874, this intrepid operator successfully removed from a boy twelve years old a large myoma from the posterior wall of the bladder by a suprapubic incision, after a preliminary lateral operation through the perineum had confirmed the diagnosis, and convinced the operator that the size of the tumor precluded its extirpation through the perineum. Volkman operated in an almost identical case of myoma vesicæ by combined perineal and suprapubic incision, with the result, however, of causing the death of the patient from peritonitis on the fourth day. In the case of Marcacci, the interior of the bladder was illuminated with magnesium light, the rays having been projected from a concave mirror. The tumor recognized by this procedure was removed by suprapubic incision. While the operation was reported as a complete success on the tenth day, the patient succumbed at the end of two months to the exhaustion consequent upon urethral fistulæ. From a rather careful examination of the literature of this subject, I have been enabled to collect a series of fourteen cases (including my own) of vesical tumors operated on in males, which may be seen in tabulated form on page 155.

It will be seen that seven recoveries resulted in eleven cases in which the perineal section was practised; three such operations resulted fatally, and one led to a partial success. Of the three suprapubic operations, two terminated fatally. When it is remembered that the recognition and operative treatment of vesical tumors are as yet in their infancy, the results that have already been obtained are exceedingly satisfactory. The fact that in the fatal cases an operation was not resorted to until the strength of the patients had been exhausted by long suffering, unquestionably has increased the death rate after surgical interference. It can scarcely be too soon to regard it as a good rule of practice that perineal cystotomy, preferably the median, as suggested by Thompson, should be performed in every case of suspected tumor of the bladder in which the symptoms are not affected by palliative means, and in which the presence of malignant disease can be excluded. Should the operation be unrewarded by the detection of a neoplasm, or should it be found that its removal can not be accomplished with safety, the operation would still benefit the patient by giving ready exit to the urine, mucus, or pus, and effectually overcoming the painful tenesmus that is so often encountered in chronic cystitis, no matter from what cause.

SODIUM BICARBONATE IN THE LOCAL TREATMENT OF ACUTE TONSILLITIS.

BY J. O. SKINNER, M.D.,
CAPTAIN AND ASSISTANT SURGEON, U. S. ARMY.

THERE appeared in the issue of THE MEDICAL NEWS of November 18, 1882, an article by Dr. Stuver, of Rawlins, Wyoming Territory, relative to the efficacy of sodium bicarbonate in the local treatment of acute tonsillitis. As for several years I have been using with much benefit this remedy, combined with myrrh tincture, camphorated opium tincture, and water, as a gargle, in both private and hospital practice, I can fully corroborate his experience in this particular. There are few diseases usually so innocent in their results which are accompanied during the first thirty-six hours of their progress with the same degree of local and general discomfort as acute tonsillitis; and, unfortunately, there are few remedies which have afforded, in my experience, any substantial or permanent benefit during the time specified.

With the exception of warmth and moisture, in the form of gargle or spray, which ordinarily gives immediate though temporary relief, I know of no local treatment so beneficial as the gargle above mentioned. If acute tonsillitis is seen sufficiently early—within a few hours after the local inconvenience has been experienced, and before any marked congestion and enlargement of the tonsils, or general disturbance, as accelerated pulse, increased temperature, intense headache, and that extreme malaise incident to this affection, have occurred—it may be, and frequently is, aborted by once or twice cauterizing thoroughly the tonsils and pharynx with a silver nitrate solution, varying in strength from ten to twenty grains to the ounce of water.

Usually, however, the case is not seen thus early, in which event the silver nitrate treatment will almost invariably increase the local distress, and interfere materially with nature's reparative efforts. The proverbial, and at one time so popular, treatment of acute tonsillitis by the potassium chlorate and iron tincture, either locally or generally administered, I have given a fair trial from time to time during the past fifteen years, and I am compelled to state that the result of such treatment has been, in my experience, far from satisfactory; in chronic or subacute tonsillitis, however, these remedies I have frequently found reliable and beneficial.

The general and favorable repute of the sodium bicarbonate in the treatment of so many functional and structural diseases peculiar to mucous tissue, and the consequent assumption that acute tonsillitis had probably been included in its applications, are the reasons why my experience with it in this affection has not been before reported.

Dr. Stuver's promptness, however, in reporting his experience with it in this disease is commendable, and will, no doubt, if properly observed and acted upon, be followed with much relief to patients, and repute to the physician who will give it a fair trial.

I differ from him only in the belief that it is very

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beneficial at times in solution as well as in powder, and a more extended experience will, no doubt, demonstrate this. It will be found very serviceable in many cases of the acute tonsillitis of scarlatina.

MEDICAL PROGRESS.

FAT-NECROSIS, A NEW DISEASE.—PROF. W. KRAUSE describes under the title of Ponfick's disease, or necrosis of the fatty tissue, a case which appears to illustrate the condition only recently (*Virchow's Archiv*, Bd. 90, p. 520) described by Balser, Prof. Ponfick's assistant. The disease starts with a gradually increasing deposit of fat-cells in the neighborhood of the pancreas, which finally reaches such an extent that it causes the destruction, usually accompanied by extensive hemorrhage, of all the other abdominal adipose tissue, particularly that of the mesentery. In the case reported by Krause, gastric distress, vomiting, and peritoneal irritation, followed by collapse, preceded death by only two days. The autopsy showed extensive pancreatic hemorrhage, with degenerative kidney disease.—*All. Wiener med. Zeit.*, January 2, 1883.

GELSEMINUM SEMPERVIRENS IN TETANUS.—DR. J. MARION SIMS reports the following case: Early in September, 1880, he was called to see a strong, healthy mulatto woman, twenty years old, who was suffering from well-marked tetanic convulsions, caused by a broken bit of glass, on which she had trodden two days previously, and which was embedded in her heel. He administered chloroform to enlarge the wound and search for the broken glass. It was impossible to anæsthetize her profoundly, and her foot was forcibly held by strong assistants while he made free incisions, but failed to find the fragment of glass. The wound was then filled with morphia, and a common poultice applied; and a cathartic was given, which acted promptly. Knowing well the inefficiency of chloroform, chloral, and opiates in tetanus, he determined to try the effect of the gelseminum sempervirens, because of its well-known power of relaxing all voluntary muscles. He therefore ordered twenty minims of fluid extract of gelseminum every two hours, alternating with the same quantity of liquor potassæ at the same intervals. There was great difficulty in deglutition, but milk and soups were taken in small quantities frequently. On the morning of the second day there was a slight improvement in the rigidity of the jaw, and the general spasms occurred only every three or four hours. But, as the day advanced, the jaw became more rigid, and there were violent and painful contractions of the muscles on the front and back of the chest. The general spasms also became more frequent, and sometimes occurred during sleep. The dose of gelseminum extract was then increased to forty minims every two hours. During the third day there was a marked improvement in both tonic and clonic spasms; the medicine was continued in forty-minim doses. By the close of the fourth day the rigidity of the jaws was almost entirely relieved, and the general spasms recurred at longer intervals, and with diminished violence. After this period, the improvement was rapid and regular, and the dose of gelseminum was reduced to twenty minims, at which it was continued till full convalescence. No remedy of any potency was used after the first six hours but gelseminum, and there can hardly be a doubt that the cure was the result of its use. The extract was given for a week in amounts closely approximating half an ounce to an ounce every twenty-four hours; it produced no other sensible effect than that of controlling the spasms and arresting the disease.—*Brit. Med. Journal*, December 23, 1882.

EXCITATION OF THE HUMAN BRAIN.—SCIAMANNA (*Arch. di Psichiatria*, 1882, p. 209) had the opportunity of applying both faradic and galvanic stimuli to the brain (chiefly through the dura mater) of a man who, in consequence of an accident, had lost part of the right parietal bone.

Excitation of the middle of the ascending frontal convolution produced contraction of masseters and closure of the jaws; of the lower third of the ascending parietal, rising of the left ala nasi and corner of mouth; of posterior central fissure (between ascending parietal and inferior parietal lobe), flexion of arm and raising of eyebrow; of posterior portion of plica supramarginalis (near inferior temporal convolution), rotation of head to left, movements of orbicularis palpebrarum, of tongue, and eyebrow.—*Brain*, Jan. 1883.

THE BACILLUS TUBERCULOSIS.—BALMER and FRAENZEL have examined the sputa in one hundred and twenty cases of tuberculosis; in all they found the bacilli present, the abundance bearing a relation to the severity of the disease. Numerous examinations of the sputa of ordinary bronchitis failed to reveal the presence of bacilli. They believe that a prognosis can be formed upon the number and character of the organisms. Whenever they are abundant and well developed, the destruction of lung tissue is rapidly going on. When they are few in number, small, and having no trace of spores, the disease is either arrested, or is making slow progress.—*Berliner klin. Woch.*, No. 45, 1882.

RUPTURE OF THE PULMONARY ARTERY.—DR. ARRO reports in *Revista de Ciencias Medicas*, December 10, 1882, the case of a man who, while apparantly in perfect health, was suddenly attacked with severe pains in the chest and clavicular region, extreme anxiety and difficulty of respiration. This condition lasted for thirty hours, when death suddenly occurred. At the autopsy, the chest was found filled with an enormous quantity of blood, which had escaped from a rent in the walls of the pulmonary artery, about an inch before its division, where it was thin and dilated.—*Gaz. Méd. de Nantes*, January 9, 1883.

THE FIRST RESPIRATORY MOVEMENT OF THE NEWLY BORN.—DR. W. PREYER, Professor of Physiology at the University of Jena, contributes to a recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* a study of the above subject. He has investigated, by means of experiments upon animals, the mode by which the first respiratory movements are brought about, and comes to the following conclusions: The necessary condition for the occurrence of the first respiratory movement is stimulation of the peripheral nerves. In utero, with the placental interchange of gases normally going on, such stimuli as the cutaneous nerves of the fœtus usually receive are not sufficient to excite the irritability of the respiratory centre. But if the amount of oxygen in the fœtal blood is diminished, the irritability of this centre is increased, and then any peripheral stimulus will excite reflex premature efforts at inspiration, which often takes place without any harm to the fœtus resulting. Without any increase in the irritability of the respiratory centre, or diminution of the amount of oxygen in the fœtal blood, extraordinary peripheral stimuli may excite inspiratory movements in the fœtus. Such movements taking place during delivery often, after separation of the fœtus, pass, without detriment to it, into normal respiration. —*Medical Times and Gazette*, December 23, 1882.

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THE PATHOLOGY OF PARALYSIS IN CASES OF ARSENICAL POISONING.—DR. JASCHKE has made a careful study of two cases of arsenical poisoning which occurred in the clinic of Prof. Berger, in Breslau, and concludes, on the following grounds, that the paralysis is of peripheral origin.

1st. On account of its localization in the path of a single nerve, the median peroneal.

2d. Because the sensory disturbances, hyperæsthesia and anæsthesia, were confined to the same location.

3d. The absence of any special symptom of spinal lesion.

4th. The absence of atrophy, in spite of the prolonged duration of the disease, excluding the possibility of anterior poliomyelitis, as it is known that atrophy is much less marked in cases of peripheral lesion than when the disease is of spinal origin.

5th. Although the paralysis was strongly marked, recovery occurred, rendering the cases analogous to instances of peripheral facial paralysis.

6th. The electric reaction corresponded to that seen in peripheral palsies.

7th. The existence of pain on pressure in the affected muscles.—*L'Abeille Méd.*, January 15, 1883.

PHYSIOLOGICAL ACTION OF THE BROMIDE OF CONIUM.—PREVOST (*Arch. de Physiol.*) comes to the following conclusions from an experimental study of this drug:

1. Paralysis from the bromide of conium results from its effects upon the motor nerves, whose irritability is destroyed.

2. If the bloodvessels of the posterior extremities of a frog be tied, and then the drug injected, these parts will remain unparalyzed, while the anterior part of the body is affected.

3. In this way, the action of both strychnia and conium can be demonstrated on the same animal.

4. The vagus is affected more quickly than the other nerves, and also regains its normal condition sooner.

5. The secretion of the urine, saliva, and tears is increased by conium.

6. The conium is excreted in the urine. The urine of a cat which had been poisoned with conium was evaporated to a syrup, and portions of this were injected under the skin of several frogs, in all of which it produced characteristic symptoms of conium poisoning.

7. The secretory nerves preserve their irritability and augment the secretions simultaneously with the loss of irritability of the vagus and muscular nerves. However, electrical irritation of the cervical sympathetic and of the chorda tympani arrests the secretion of the saliva. Peripheral irritation of the nerves of the arm induces free perspiration of the palm, when muscular contraction cannot be produced. The same is true of the nerves of the foot.

8. In the warm-blooded animals, if artificial respiration be resorted to, the heart continues to beat.

9. It is doubtful if the nerve centres are at all affected by the poison, for in warm-blooded animals the convulsions were wholly due to asphyxia, and were relieved when artificial respiration was practised.

10. The irritability of the muscular substance is not affected by the drug.—*Physician and Surgeon*, January, 1883.

A NEW REACTION OF THE URINE IN INFECTIOUS DISEASES.—At a recent meeting of the Gesellschaft der Charité-Aerzte, in Berlin, EHRLICH described a new reaction of the urine. When a solution of sulphanilinic acid (*sulphanilsäure*) and ammonia is added to the urine from cases of tuberculosis, typhoid, or other infectious fever, a bright-red color is produced. The urine from cases of ordinary inflammatory or febrile diseases does not give this reaction. The details are promised.—*Berliner klin. Woch.*, January 1, 1883.

ŒSOPHAGOTOMY.—On September 4, 1882, external œsophagotomy was performed in the Kommunehospital at Copenhagen, by DR. HOLMER. The patient, a man aged thirty, was a lunatic who had swallowed a stone with suicidal intention two days before. The foreign body became impacted in the gullet a little before the larynx, and could not be dislodged either upwards or downwards. The accident was further complicated by the "cradle" of Gräfe's coin-catcher having become detached during the attempts to extract the stone, and remaining in the gullet. Dr. Holmer then made an incision along the anterior border of the sternomastoid muscle, and opened the œsophagus over the site of the impacted substances. The little "cradle" was first removed, and, after a good deal of trouble, the stone was seized with a pair of forceps such as are used for lithotomy in children, and extracted. The stone was found to be five centimetres long, by five centimetres wide at its broadest part. The wound was dressed with iodoform, and the patient made a rapid recovery. His voice, however, remained hoarse, owing to paralysis of the left vocal cord. This was possibly due to injury to the left recurrent nerve during the operation, but Dr. Holmer thinks it more probable that it was caused by the pressure of the stone, as the patient's voice was husky when he first came under observation.—*Med. Times and Gaz.*, Jan. 13, 1883.

THE EXTERNAL ACOUSTIC NUCLEUS AND THE RESTIFORM BODY.—MONAKOW (*Neurol. Centralb.*, No. 21, 1882) divided the left half of the spinal cord immediately below the decussation of the pyramids in a rabbit on the day of its birth. Six months afterwards the brain was examined, and the following changes found: atrophy of left lateral columns of the medulla; partial atrophy of the left formatio reticularis; atrophy of the lateral cerebellar tract; atrophy of left funiculus cuneatus and its nucleus; atrophy of the external acoustic nucleus; partial atrophy of the left corpus restiforme (inner side); partial atrophy of cortex of upper vermiform process.

No change in the auditory roots, ascending trigeminus root, or inner part of cerebellar peduncle. Hence the author concludes that the external acoustic nucleus is in relation with spinal fibres, and not with the auditory nerve nor the cerebral peduncle; that the funiculus cuneatus passes partially through the corpus restiforme; that the lateral cerebellar columns terminate in the superior vermiform process.

[In a paper recently read before the Société de Biologie, Laborde gave an account of some experiments made by M. Duval and himself on the semicircular canals and the corpus restiforme. Injury in both cases gave rise to the same phenomena (loss of equilibration). He describes certain fibres which he believes to start from the ampullæ, and some of which go to the restiforme body, others to the cerebellum.]—*Brain*, January 1883.

A MODIFIED CATHETER.—DR. HUPEDEN believes that chronic catarrh of the bladder is largely kept up by the introduction of bacteria, etc., in catheters which it is impossible to clean. He advises, therefore, that the blind end of the catheter, up to the opening in the side for the escape of urine, be made perfectly solid, so as to facilitate cleaning by removing a lodging-place for foreign materials, which is almost inaccessible for cleaning purposes.—*Berliner klin. Woch.*, January 15, 1883.

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SATURDAY, FEBRUARY 10, 1883.

THE ANNUAL MEETING OF THE NEW YORK STATE MEDICAL SOCIETY.

IN this issue of THE MEDICAL NEWS we have the pleasure of laying before our readers a full report of the proceedings of the annual meeting of the New York State Medical Society, received by telegraph from our special reporter at Albany. The Society's proceedings this year will be read with unusual interest, on account of the importance attached to the discussion of the new Code, and we are happy, therefore, to be able promptly to place before our readers a full report of the meeting.

By a vote of 105 to 99, the Society, after a year's deliberation, has reaffirmed its approval of the "new Code," and has thereby placed itself in opposition to the expressed sentiment of two-thirds of its component county societies, of the American Medical Association, and of the entire medical community of the United States outside of a few counties of the State of New York.

The New York State Medical Society in its new Code virtually declares to the people that any one whom the laws of New York permit to practise physic or surgery, whether he be educated in medicine or not, whether he be an eclectic, homœopathist, herbalist, physio-botanist, Thomsonian, bone-setter, or what not, is in medical matters entitled to the confidence of the community, and that there exists no honorable reason why a physician should not give his endorsement to such a charlatan by meeting him in solemn consultation, and become a party to the treatment of a case in his charge, the management of which may involve the responsibility of the life or death of the patient.

The lay press, speaking for the public, will applaud the new Code, because it cannot see beyond the apparent liberality in the expressed willingness to meet in consultation any one, whatever his knowledge or fitness may be, whose services the patient can command. But it is in reality the public itself which is most injured by the Code, for it obliterates the broad distinction, which was previously easily recognized, between scientific medicine and medical charlatanry.

The new Code has been condemned with absolute unanimity by the profession outside of a few counties including the cities of New York and Brooklyn, and it remains to be seen if the large majority of county societies constituting the State Society will accept it, or if, in the event of failure to repeal it next year, they will consider it advisable to form a new State Society, and thus place themselves again in affiliation with the American Medical Association and the profession of the whole country.

THE HYGIENIC TREATMENT OF ALBUMINURIA.

IN the treatment of the different forms of renal affection included under the general term Bright's disease, albuminuria is the symptom which deserves most attention. Not because, as is commonly supposed, of the drain which such an albuminuria exerts upon the body, for even in large albuminurias the proportion of albumen is seldom more than $\frac{1}{10}$ of 1 per cent.; and even when the proportion is higher, that is, ½ or $\frac{8}{10}$ of 1 per cent., such a loss is not very harmful, and half a pound of beef will supply the albumen lost at this rate for an entire week. The reasons why the albumen is of such importance is, rather, that it is an index of the extent of the renal disease. Without albuminuria it is not easy to diagnosticate a disease of the kidney, and especially Bright's disease, even though from time to time albumen may be absent, and we are constantly in the habit of estimating the seriousness, the progress, or decline of a renal disease by the variations in the quantity of albumen. Senator suggests that the excretion of albumen may act as an irritant to the kidney, since J. C. Lehman and Stokvis have shown that when egg albumen is introduced into the blood, more is excreted than is introduced, such increase being due to serum-albumen and globulin.

The therapeutics of albuminuria have not been satisfactory. Neither astringents, fuchsin, pilocarpin, nor the acids, have justified the claims made in their favor. The usefulness of iodide of potassium in some forms of chronic nephritis is not denied, nor our ability to combat other symptoms, as the dropsy, asthma, etc., for which we have efficient remedies, but we refer only to albuminuria.

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One is easily deceived as to the usefulness of remedies for acute nephritis, since it frequently terminates favorably, independent of any therapeutic measures. In chronic nephritis, also, it is equally easy to overestimate a remedy, because variations in the course of the disease are common, and the albuminuria may diminish for days, and even weeks, whether therapeutic measures are used or not—partly because of complications, partly because harmful influences are avoided, and partly because of hygienic measures. With regard to the latter, experience has shown that while very brilliant results cannot be claimed for them alone, they are at least more satisfactory than the results which follow the use of drugs alone.

Since the publication of his monograph on "Albuminuria in Health and Disease," the name of SENATOR is perhaps better known in connection with albuminuria than that of any other writer or investigator. On this account a recent lecture by him before the Berlin Medical Society (*Berlin. klin. Wochen.*, Dec. 4, 1882), on the hygienic treatment of albuminuria, should excite unusual interest.

First in importance in this method of treatment is *diet.* Two points must be remembered in relation to this: 1st, the influence which the act of digestion itself exerts upon albuminuria; and, 2d, the influence of the different varieties of food. With regard to the former, recent observation has shown that during digestion the excretion of albumen has been increased in those in whom albuminuria is present; has returned in those from whom it has disappeared; while the digestion of a full meal has even caused a transitory albuminuria in those who are otherwise free from it. Hence the rule that, *in albuminuria it is better to take small quantities of food, at short intervals, than larger quantities at longer intervals.* Much more important is the selection of suitable articles of food. Even the older physicians noticed that certain articles of food increased albuminuria, while recent experiments have shown that not only the injection of egg albumen into the blood produces albuminuria, but even its introduction into the stomach. *The use of eggs should therefore be avoided,* at least in albuminuria of long standing. The same is true of animal flesh and cheese, which should be interdicted, not for this reason alone, but because they add to the urea, and probably also to other effete proteid substances, in the blood, and thus increase the danger of uræmia. When it is not desirable to exclude meat wholly, that should be used which is poor in albumen, as veal and young fowls, and of these the "white meat." On the other hand, vegetables may be freely used, and of these the green vegetables, salads, and fruits, are to be preferred to those more rich in albumen, as the leguminous. The propriety of using other articles of food, as, for example, the fats, which, in consequence of the restricted albuminous food would seem desirable, must be determined by the condition of digestion.

As regards drink, it has been the practice to forbid the use of alcoholic drinks, because clinical experience has shown that the intemperate use of alcohol induces renal disease; but, recently, Von Pentzold has shown, experimentally, that inflammatory renal affections may be produced in dogs by ethyl and amyl alcohol. But, while water and effervescing and alkaline drinks are more suitable, the use of alcoholic drinks need not be entirely prohibited, especially to those accustomed to their use. Whiskey, brandy, etc., should always be avoided, unless special indications, as those of collapse, demand them. Senator has usually permitted the use of red wine, rather from tradition than upon any well-determined grounds. The value assigned by some to the tannin contained in these wines is not justified, for, in the first place, tannin is useless, and in the second, its quantity in the red wines is too small to have any effect. He also considers beer more harmful than wine, notwithstanding the well-known fact that the strongest beers contain less alcohol than most wines. In one instance only—in a case of the so-called albuminuria of health—did Senator find that the use of wine increased the amount of albumen excreted, while beer did not. Finally, spices and highly seasoned food, and errors of diet of any kind, are harmful.

It is interesting to note that the milk treatment, which is the most valued of the dietetic methods, corresponds entirely with the principles just laid down. In alluding to it, Senator says, "An exclusive milk diet can seldom be maintained for any length of time, and it must not be taken too literally. If an adult, for example, takes two quarts of milk daily, he does not obtain the minimum quantity of albumen required for the maintenance of life." According to Voit, an adult person, who does nothing, and receives only the so-called "sustenance diet," requires daily 85 grammes of albumen, 30 grammes of fat, and 300 grammes of carbo-hydrates; and even for aged beneficiaries, not less than 60 to 80 grammes of albumen daily are necessary. On the other hand, the 74 grammes of fat contained in two quarts of milk is more than twice the amount required, while the proportion of carbo-hydrates, not quite 100 grammes, is far too little. The deficiency is in part made up by the fats, which can substitute the carbo-hydrates. But, in order to make up the entire deficiency, more carbo-hydrates are necessary. This is done by adding a few hundreds grammes of bread, and instead of pure milk, using milk soups, made by adding carbo-hydrates,

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in the shape of flour, oatmeal, etc. Such a milk diet can be carried out with good results, and corresponds with the above-named conditions of a diet for albuminuria.

In this admirable lecture, which is based upon common sense as well as scientific reasoning, Senator refers to the treatment of albuminuria by *mineral waters* and *baths*, by *rest* and *climate*. The advantages sometimes derived from the first, he is inclined to ascribe to their action upon digestion, the saline or alkaline saline waters being those generally most useful. Hot baths are useful by favoring the action of the skin, inviting the blood to the surface, and promoting molecular change. For favoring the first two objects also, the use of woolen underclothing is efficient.

Since *muscular exertion* has been found to increase albuminuria, Senator highly approves of rest in bed, and if the patient suffers for the want of fresh air, he recommends driving. He might have added that daily massage and the sun-bath are also admirable substitutes for the muscular exercise which is forbidden. Especially should muscular exercise be avoided by women during menstruation, for it has been observed that albuminuria is increased at such times, quite independently of the admixture of menstrual blood. Psychical influences such as fright, or intense emotion of any kind, having been found to aggravate albuminuria, should be carefully guarded against.

Finally the *climatic* treatment may be made to include nearly all of the foregoing, and is therefore likely to be of the highest service. The Southern dry climates are the most beneficial. What the climatic treatment is to the rich, hospital treatment is to the poor, for in it, too, are combined the dietetic measures, the uniform warmth, and the rest in bed, which are so essential in the treatment of albuminuria.

Most, if not all, of the methods of treatment above mentioned have been tested by ourselves, and we can freely say with Senator, that while brilliant results in chronic albuminuria are as rare by hygienic as by other methods, it is still possible by means of them, not only to decidedly diminish the excretion of albumen, but also, at times, to cause its entire prevention—to produce in fact what may be termed a cure.

ANÆSTHETIC MIXTURES FOR SMALL OPERATIONS.

IT is often desirable to apply locally some anæsthetic material to deaden the sensibility sufficiently for small operations. There are various expedients proposed for this purpose. We do not now refer to the use of ether spray, but to various liquids which may be applied directly, and the sense of pain so far obtunded as to permit incisions without experiencing any other sensation than the mere touch. The mixture of chloral and camphor is often useful. When equal parts of chloral and camphor are triturated together, a clear, somewhat viscid, transparent solution results. This solution has considerable solvent power, and will take up a comparatively large proportion of morphia. Chloroform may also be added to it without precipitation of any portion of the dissolved constituents. Thus: ℞. Chloral., Camphor., āā ʒij; Morphiæ sulph., ʒss; Chloroformi, ʒj.—M. This may be applied with a camel's-hair brush over the area to be incised, allowed to dry, and reapplied as freely as may be necessary to render the part insensible to pain.

Amongst the anæsthetic mixtures for surgical purposes proposed by Prof. Redier, are solutions of camphor in ether and in chloroform. According to Redier, one drachm of camphor may be dissolved in two drachms of ether, or the same quantity of camphor in two drachms of chloroform. A useful anæsthetic mixture is prepared by the addition of crystallized acetic acid to chloroform, in the proportion of one part of the acid to twenty parts of chloroform. These anæsthetic solutions are applied by the brush freely over the part the seat of pain, or to be incised. In some instances it may be better to moisten a cloth or some cotton and allow it to remain for some time in contact with the part.

Pure carbolic acid has an anæsthetic effect when applied to the skin. This fact, originally stated by Dr. Bill, of the army, in a paper which appeared in the *American Journal of the Medical Sciences* some years ago, has been utilized to some extent since, to lessen the pain of incisions in the skin in small operative procedures.

MYXŒDEMA.

M. GUERLAIN recently presented to the Société de Chirurgie, of Paris, an eminently characteristic communication on "the influence of traumatism in the development of that curious affection which M. Charcot has described under the name *myxœdema*." All the world, outside of France, knows that Sir William Gull first mentioned this disease as a "cretinoid state supervening after adult life in women," the paper appearing in vol. vii. of the *Transactions of the Clinical Society of London*. The term "myxœdema," was proposed by Dr. William M. Ord, in a paper to be found in vol. lxi. of the *Medico-Chirurgical Transactions*. Charcot was not even the first author to write on this disease in France. Dr. Hadden, we think, gave the first account of it in *Le Progrès Médical*, Nos. 30 and 31, for 1880.

Although M. Guerlain cannot maintain the claim put forward for Charcot, he succeeds in showing

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that some cases have their origin in lesions of the cervical sympathetic, and he presents the details of one example thus originating. At the same meeting M. Verneuil referred to a case communicated by Dr. Henrot, in which the cervical sympathetic had undergone hypertrophy, having attained the size of an index finger. The view which has been maintained by neurologists that myxœdema is a nervous affection, receives strong support, therefore, from these examples of the disease caused by an affection of the sympathetic.

THE APPROPRIATION TO THE LIBRARY AND MUSEUM OF THE SURGEON-GENERAL'S OFFICE.

IN our issue of last week, page 116, was a news item that "The Army Appropriation Bill, as reported to the Senate, abolishes the office of Assistant Surgeon-General, and appropriates $15,000 for the purchase of books for the Army Medical Museum." We are very sorry to learn that, so far as the appropriation is concerned, this item is incorrect. Instead of giving $15,000, the appropriation is proposed to be reduced to $5,000, for the museum and library together. It will be remembered that a similar reduction was proposed by the House committee on appropriations, but that it was restored to the usual amount, viz., $10,000, on motion of Mr. Butterworth.

What can have induced the Senate committee to recommend this exceedingly inexpedient reduction we do not know, although we are told that one of them says that "there is no use in spending Government money for books which nobody cares anything about except a few doctors." We can assure the committee that there are a good many doctors all over the country who are interested in having this library made and kept as complete as possible. It should have every medical book, pamphlet, and journal as soon as published, and to do this it ought to have an appropriation of $10,000 a year, besides what is required for the museum.

The benefits of such a library upon medical literature and medical education in this country are immense and continuous, and they extend to the patients of physicians quite as much as to physicians themselves. We must confess that it is a little discouraging to find a committee of United States Senators recommending such action as this in the face of the information which they have, or should have, as to the practical value of this museum and library, and as to its importance to the medical profession of the country. We give herewith the names of this Senate Committee, and we think they should hear from their medical acquaintances on this subject. It is to be hoped that the amendment will be stricken out, and that, at all events, the House Committee in conference will firmly refuse to accept this amendment.

Senate Committee on Appropriations: Hon. William B. Allison, of Iowa; John A. Logan, of Illinois; Henry L. Dawes, of Massachusetts; P. B. Plumb, of Kansas; Eugene Hale, of Maine; Henry G. Davis, of West Virginia; James B. Beck, of Kentucky; Matt. W. Ransom, of North Carolina; Francis M. Cockrell, of Missouri.

A SOCIETY FOR THE SUPPRESSION OF VIVISECTION.

THE public prints state that a society for the immediate suppression of vivisection, "the deadliest of all cruelties," is about to be started in this city, and doubtless in the other large cities of the country. Well-meaning but inconsiderate and ignorant zeal could scarcely go further. To protect animals from cruelty, whether of carter or doctor, is not only right, but laudable. But it cannot be too strongly or too often urged that to search by experiments upon animals for the functions of the different regions of the brain, or the exact effects of certain drugs, or for an antidote to the venom of dog or of serpent, and such like scientific and practical facts bearing on the health and the lives of the community, is not cruelty to animals any more than their slaughter for food or clothing, and far less than their slaughter for mere ornament or their maiming for sport. To "suppress" vivisection will be cruelty to man himself by condemning the race to needless suffering and to death by hindering scientific investigations, which will relieve the one and prevent the other.

Another point also is misunderstood. The opponents of vivisection give an impression to the general public that vivisection is a wide-spread and frequent evil, as if every callow student of medicine rushed into the field of experimentation upon animals. The fact is the other way. Few, very few medical men do any work in this direction. The proposition to restrict it to competent professors, etc., is useless, since it is practically so restricted at the present time. To say nothing of the time and trouble, the expense alone would restrict it to a very narrow circle. In fact, we doubt very much whether there be in the goodly city of Philadelphia, out of her 1500 doctors, six men engaged in vivisection, and they only occasionally, and not as a continuous occupation. Whether it be worth while to organize a whole society to suppress these six men is a serious question.

We trust that not only our professional but our lay readers will do all in their power to counteract the baneful influence of any such society if it be formed. Kindness to animals, when it becomes indirect cruelty to man, is simply monstrous.

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M. DESNOS has found resorcin very effective in reducing the temperature of typhoid. Under its use, the heat has fallen in a short time three degrees Cent., and the decline of temperature is accompanied by profuse sweating. It has proved more manageable than carbolic acid, and it has a good effect on the diarrhœa. As it is a safe remedy, it will probably prove very valuable in the treatment of typhoid. M. Desnos has, also, essayed the use of resorcin in the treatment of rheumatism and phthisis, but he concludes that it has no special value in these diseases.

DR. DUPRÉ has lately made the relation of urea-formation to the functions of the liver the subject of a thesis. He concludes that, whilst the liver is not the only source of urea formation, it is the principal one. The formation and expulsion of urea and of uric acid are depurative acts in which the liver participates. All those circumstances which increase the normal activity of the liver also augment the quantity of urea, and *vice versâ*.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Seventy-seventh Annual Meeting, held in Albany February 6, 7, and 8, 1883.

(*By telegraph from our Special Reporter.*)

TUESDAY, FEBRUARY 6TH.—FIRST DAY.
MORNING SESSION.

THE Society met in the Geological Hall, and was called to order by the PRESIDENT, HARVEY JEWETT, M.D., of Canandaigua.

Prayer was offered by Rev. Albert Foster, of Tabernacle Baptist Church.

THE PRESIDENT then delivered his

INAUGURAL ADDRESS.

GENTLEMEN—With pleasure and great cordiality would I greet you upon the return of this the seventy-seventh anniversary of our honored Society. We are gathered according to usage as representatives of the medical profession of the Empire State, to discuss scientific subjects connected with our profession, to strengthen our social and fraternal ties, and to animate our mutual zeal and industry in the exercise of our daily toil and philanthropic labors.

You will pardon me if, at the very threshold of my present duties, I pause to make my grateful acknowledgment for the high compliment of an unanimous election to the presidency of the largest medical society in the United States. Fully do I appreciate it, diffidently have I accepted it, while bringing to it my deepest interest and desire that all we say and do may leave an impress of value and improvement on the great interests we have in charge.

The age in which we live is especially characterized by the enthusiasm and push in every department of literature and science. Not alone have the special departments of our profession been advanced by the indefatigable labors of those who are devoting their time and talents to the prosecution of their work, but the art and science of medicine generally is advancing, until we look forward to further possibilities and higher achievements in scientific investigation and discovery. If we look back for half a century and mark the steady and progressive steps in medical practice, the dissipation of crude views and absurd practices that governed the profession in those days, and note what has been accomplished in this generation, we shall find an amazing advance on any other period in the world's history.

The result of all legislative enactments in this, and I believe in other States, for the last forty years, to regulate the practice and elevate the standard of medical education, has done little or nothing to abate quackery, or increase the interest in medical literature in this State. Whatever is done in regard to this subject must be done by the profession through their individual organizations. The profession is competent, through their representatives in the State and county societies, to establish what shall be the standard of attainments of those who are to be received into their ranks. A more complete and thorough preliminary education of young men who desire to enter upon the study of medicine is the first step in advancing the cause of medical science. A much higher standard of medical qualifications before the granting of a diploma is universally conceded and acted upon by the leading medical colleges in this country. These requirements, if carried out, will in the future tend to bring about the desired result. We have as a nation reached a stage of progress and development when our leading medical schools can carry the standard of professional education to a much higher plane than in years that are past. The graded course of instruction, as adopted in the medical department of the University of Pennsylvania, Harvard College, and the Syracuse University, especially commends itself to our consideration, and in due time no doubt will be adopted by the medical schools in this country as the most systematic and approved method of instruction.

In 1872 a law was enacted in this State, creating a State Board of Examination, whose duty it should be to certify to the qualification of candidates for the honor of graduation from our medical colleges. This law was not made obligatory, and was not received with favor by the medical schools at that time, hence it has been inoperative and useless. This law should be made compulsory and comprehensive, embracing all medical schools, under whatever name, which aspire to the dignity of conferring degrees upon their pupils. The existence of such a board of examination appointed by the Regents of the University and the Medical Society of the State, and entirely disconnected from the schools, whose certificate alone shall be a passport for graduation, would remove all imputation of partiality or favoritism from any source. This plan carried out will exempt the teachers from final responsibility, and sift out those who are disqualified to enter the ranks of the profession. "All medical schools that fail to come up to the required standard of instruction" will go down for want of patronage, and we shall see illustrated the doctrine of evolution in the "survival of the fittest."

The recommendations of my predecessor in relation to the establishment of separate hospitals in our large cities for the isolation and care of those who are suffering from contagious diseases, such as scarlet fever and diphtheria, as well as the humane supervision of factory children, are eminently philanthropic and demand considerate attention at the hands of this Society, and I trust that they will be speedily carried into practical operation.

The subject of the adulteration of food and drugs has been repeatedly considered by the members of this Society, as well as by boards of health in various

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parts of the country. Notwithstanding all our vigilance this nefarious fraud is daily practised in our large cities. The State Board of New Jersey has established a board of analysts to whom this subject is referred. This Board, as well as our own State Board of Health, is making diligent effort to investigate and suppress this iniquity.

I would call your attention to a time-honored custom of this Society, of holding the evening session of the second day in the Assembly Chamber of the Capitol, to listen to the annual address of the President. There is nothing in the by-laws of this Society having special reference to the time or place where the President's address shall be delivered. Article 1st, Section 7th, says that "The annual meeting of this Society shall be held at the Capitol, or some convenient place in the city of Albany, on the first Tuesday in February in each year, and all other meetings shall be held at such time and place as may be determined by a majority of the Society convened at any legal meeting." Reasons may have existed in the early history of this Society, at the time of the adoption of this rule, that do not exist at the present time, and I would respectfully suggest that the annual address of the President be delivered in the hall where we hold our daily sessions.

I would also direct the attention of this Society to the efficient and philanthropic labors of our State and National Boards of Health. The National Board was organized by law in 1879, in response to an emphatic and vigorous appeal to Congress, on the part of the medical profession and the philanthropists of this country. The board has done much in the brief time of its existence, to stay the progress of contagious and epidemic diseases, to aid State and municipal boards in its advisory and coöperative capacity, in limiting the spread of pestilential diseases in our land, without materially interfering with the commerce of our seaboard, or traffic on our inland rivers. The labors of this board are practically suspended by the remarkable disregard of the public health, on the part of Congress, in withholding supplies to carry on their labors. I trust the Society at this time will give the subject considerate attention, and not only endorse the action and services of the National Board, but give an emphatic expression of their views in regard to withholding congressional appropriations to carry forward this eminently benevolent work.

At the annual meeting in February, 1881, this Society appointed a committee of five, from among the most distinguished medical gentlemen of the State, to consider and revise the old Code of Medical Ethics which had governed our action for nearly forty years. In conformity with the instructions given this committee, they presented their report at the annual meeting in 1882. At the same time a substitute was offered to this effect—that we abolish all restrictions relative to the practice of medicine, as superfluous and unnecessary in the presence of the unwritten or higher law, leaving all ethical questions to be settled by the gentlemanly instincts of the profession. The report of the committee, as well as the substitute, was printed and placed in the hands of every member of the Society who desired a copy, that they might examine and vote deliberately and understandingly upon the changes reported for their consideration and adoption. After a general discussion, in which all present had an opportunity to express their views, the report of the committee was adopted by a large majority. The new Code has not been received by the profession, or the medical press, in this and in other States with cordiality or favor, but on the contrary by the most outspoken and emphatic opposition. The county societies, at their first meetings, expressed their surprise at and disapproval of the new Code adopted by a majority of their representatives, as unbecoming the dignity of the profession, and as revolutionary in its nature, and "disorganizing in its tendency." A year's consideration, a calm and dispassionate discussion of the matter, has greatly modified the views of the profession in reference to the objectionable measure, and I trust a more conservative sentiment exists to-day than at the time of its adoption.

The American Medical Association, at the annua meeting at St. Paul in June, 1882, refused admission to the delegates from the Medical Society of the State of New York, because they failed to recognize some of the provisions of the old code, which had controlled their action for so many years, and had taken the liberty to substitute what was deemed a more progressive and liberal spirit in reference to established rational medicine as it exists at the present time. The objectionable clause in the new code consists in the *permission* of consultation with any *legally* qualified practitioner of medicine, as not derogatory to the interest and dignity of the profession, or in cases of emergency, or where such aid is required, upon the broad ground of common humanity.

The advocates of the new code assert that this is merely permissive, that no one is under obligation, expressed or implied, to meet an irregular practitioner in consultation, unless he prefers to do so, but in certain cases it would be illiberal, inhuman, and contrary to the spirit of the age, to withhold professional aid, because of "difference of opinion in creed or belief." The attention of the Society at this meeting is directed to a consideration of the merits of this subject, to confirm, modify, or abolish the new code, as in their wisdom and judgment they may deem most conducive to the welfare, dignity, and interests of the medical profession of the State of New York.

One subject of painful interest remains for our consideration, to which I must direct your attention before proceeding to the business before us. Death has entered our ranks during the past year and removed those who stood high in the esteem of our profession. We record the death of Prof. James R. Wood, of the city of New York. He was regarded as among the most able teachers and distinguished surgeons of this country. Dr. George Burr, of Binghamton, and I. Foster Jenkins, of Yonkers, both prominent members of this Society, as well as of the cities in which they lived, have been removed by death since our last annual gathering. The memory of these distinguished gentlemen will receive suitable consideration at the hands of this Society.

With the confident expectation that this session will be characterized by harmony in its deliberations, and made profitable to the great State we represent, I would announce that we are ready to attend to the business for which we are convened.

THE PRESIDENT then announced the appointment of the following committees.

Business Committee.—Drs. Alexander Hutchins, of Kings County; C. C. F. Gay, of Erie; and B. L. Hovey, of Rochester.

Committee on Credentials.—Drs. E. V. Stoddard, of Monroe County; L. E. Felton, of St. Lawrence County; and T. H. Squire, of Chemung County.

On motion of DR. S. O. VANDER POEL the following was adopted:

Resolved, That the subjects contained in the President's address be referred to a committee of three for consideration and appropriate action.

On motion of DR. WM. C. WEY, a recess of ten minutes was taken for registration and to enable the Business Committee to arrange for the reading of papers.

THE SECRETARY, on resuming the business of the meeting, read the list of counties in the call for communications. Communications were presented only from

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the counties of Westchester, Monroe, and Broome, which were on motion received and placed on file.

REPORT OF COMMITTEE ON EXPERIMENTAL MEDICINE

was presented by Prof. John G. Curtis, of New York, as follows:

To the Secretary of the Medical Society of the State of New York.

SIR: In behalf and by order of the Committee on Experimental Medicine, I have the honor to submit the annual report of the Committee of 1883, as follows:

The bill of Mr. Henry Bergh, to prohibit the vivisection of animals, was introduced into both houses of the Legislature near the end of April, 1882. In both houses the bill was referred to the Committee on Public Health.

To the Senate the bill was never reported. To the Assembly it was reported adversely, on May 3d, and the report was agreed to. The terms by the bill were the same as those of the bills which were reported adversely by the Legislatures of 1881 and 1882. Thus, for the third time in succession, the Legislature of New York has put the stamp of its disapproval upon this injurious measure.

Since the last annual meeting of this Society, the committee has been apprised of the formation, in Great Britain, of a very important body, entitled "The Association for the Advancement of Medicine by Research," of which the objects are, in general, closely similar to those of the Committee.

In pursuance of the authority granted to it by the State Society, the Committee has elected as corresponding members, a number of the officers and members of the British Society, and has authorized the Secretary of the Committee, Dr. Dalton, to enter into general correspondence with that Society. The Committee has received very flattering replies from almost all of the gentlemen elected corresponding members, including Sir W. Jenner, President of the Royal College of Physicians of London; Sir Erasmus Wilson, President of the Royal College of Surgeons of London; Sir James Paget, Dr. Wilks, Dr. Lauder Brunton, Prof. Lister, Dr. Burdon-Sanderson; Prof. Tyndall, Prof. Huxley, and Prof. Rutherford.

Dr. Dalton's correspondence with the Society in question has further resulted in the receipt therefrom of a number of valuable documents, and in the establishment of a relation between the two bodies which cannot fail to prove a useful one.

At the last annual meeting of the State Medical Society the Treasurer was authorized to set aside, from moneys not otherwise appropriated, the sum of $100, and the Committee on Experimental Medicine was authorized to draw against this sum for the contingent expenses of the Committee, any unexpended surplus of the said sum to be returned to the general fund of the Society at the end of its current fiscal year.

I am happy to report that it has been unnecessary for the Committee to draw against this appropriation at all, and it is therefore, with the thanks of the Committee, returned intact to the general fund of the Society.

The expenses of the Committtee for the past year have been small, and the funds already in hand have more than sufficed to defray them, leaving a balance in the Committee's treasury to a fair amount.

In conclusion, the Committee would respectfully recommend the adoption of the following resolution:

Resolved, That this Society wishes hereby to declare anew, at the present annual meeting, its often-expressed conviction of the supreme importance to the art of medicine of scientific experiments upon living animals.

All of which is respectfully submitted.

(Signed) JNO. G. CURTIS,
Delegate of the College of Physicians and Surgeons, in the City of New York.

A COMMUNICATION FROM THE WESTCHESTER COUNTY SOCIETY

was received, transmitting the following resolutions, which had been adopted, in reference to the new Code.

Resolved, That this Society reaffirms its adherence to the principles of the Code of Ethics of the American Medical Association, and declares that, in its opinion, for a physician to extend professional recognition to irregular practitioners is to patronize and encourage irregular practice; and it is alike inconsistent with honesty of purpose and the pursuit of medicine as a science.

Resolved, That the Medical Society of Westchester County disapprove of the action of the New York State Society.

Resolved, That this resolution be referred to the State Medical Society at its next annual meeting.

DR. J. B. ST. JOHN ROOSA offered a resolution that this communication be referred to the Committee on By-laws, and that the County Society be censured for its action in repudiating the By-laws of the State Society. He said he considered the tone of the communication as entirely improper, coming, as it did, from a district society to this Association, and criticising its proceedings.

DR. GOVAN, of Stony Point, reminded the speaker that it would be highly inconsistent to condemn a county society for secession, since this Society itself has seceded from the American Medical Association.

DR. ROOSA denied most emphatically that the New York State Medical Society had seceded from any body. The American Medical Association is an unincorporated body, this Society being under no obligation to it, and never having subscribed to its rules. We do not consider ourselves in any way bound to obey the rules of the American Medical Association. This Rip Van Winkle body, this excursion association, was not thought of when the New York State Medical Society, incorporated in 1806, was already a scientific and important representative body of physicians.

DR. THOS. F. ROCHESTER, of Buffalo, said that the speaker was in error; this Society had bound itself to obey the rules of the American Medical Association, and had adopted its Code, and agreed to be bound by its provisions. If Dr. Roosa would turn to the proceedings of the Association, he believed that he would find that such a resolution had been passed by the New York State Medical Society.

DR. ROOSA.—And abrogated last year.

Amid a call of several members for the question, a substitute for the resolution, offered by Dr. PIFFARD, that the communication be received and placed on file, was carried.

A COMMUNICATION FROM MONROE COUNTY

was received upon the same subject.

DR. PERKINS offered the following:

Resolved, That all communications from county societies upon the subject of the Code, simply be announced and passed by the Secretary, without reading.

The point of order was raised, that the business of the hour was listening to reports from county societies, and that they could not be heard without they were read.

The motion of Dr. Perkins was lost, and the President stated that but a few more communications were to be read.

A COMMUNICATION FROM THE OSWEGO SOCIETY

was subsequently received, approving the utmost freedom in attending patients, without regard to medical belief, but condemning the seeking of consultations with other than regular physicians.

The reading of this communication gave rise to

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much merriment, but it was, on motion, ordered to be received with the preceding and filed.

THE COMMITTEE ON BY-LAWS,

appointed at the last meeting, reported, through the chairman, Dr. Wey. It deprecated the general indifference exhibited by the several county societies to the duty of having their by-laws revised by the Committee, in order to render them uniform and in accordance with the laws of the State and this Association. The only response received was from Warren County. Having examined the by-laws of the Warren County Medical Society and found them in conformity with those of the State Society, the Committee moved that they be approved by this Association. The report was received and the resolution adopted.

The Committee further reported, that it believed that only seven county societies in the State were acting under rules in accordance with the by-laws of this Association, and the Committee, therefore, offered the following resolution:

Resolved, That the several county societies of this State be requested to submit, before the next meeting of this Society, their by-laws to the Committee, in order to make them correspond with those of this Association, and of the Sate.

A motion to lay this upon the table was lost. The resolution was then adopted.

A communication having been referred to the same Committee, which had been sent in by the Otsego County Society, with reference to the law requiring the annual payment of dues by permanent members on penalty of losing their membership, the Committee presented a report showing the necessity of this measure in order to maintain the income of the Society. The Chairman read the text of the resolution passed in 1880, and offered the following:

Resolved, that it is not expedient to change the By-laws of this Society upon the subject referred to the Committee.

The resolution was unanimously adopted.

THE NEW CODE.

DR. E. R. SQUIBB, of Brooklyn, offered the following resolutions and moved they be made the special order of a special session of the Association, to be held this evening at 8 o'clock:

Whereas, The Special Committee on the Code of Ethics, in its report at the last annual meeting, recommended a change in one part of the Code which was more in the nature of a revolution than of a revision, and, therefore, may be more radical than was expected or desired by the constituency of this Society; and

Whereas, That report was adopted at a session wherein only fifty-two members voted in the affirmative, and thus legislated for the entire profession of the State on a subject of vital importance, in a direction which may not have been anticipated or desired by the profession at large; therefore, be it

Resolved, That all the action taken at the annual meeting of 1882, in regard to changing the Code of Ethics, be repealed, leaving the Code to stand as it was before such action was taken.

Resolved, That a new Special Committee of five be nominated by the Nominating Committee of the Society, and be appointed by the Society to review the Code of Ethics, and to report at the annual meeting of 1884 any changes in the Code that may be deemed advisable.

Resolved, That the report of this Committee be discussed at the meeting of 1884, and be then laid over for final action at the meeting of 1885.

DR. ROOSA moved that the resolution as offered be amended so as to read 7.30 instead of 8 o'clock. Adopted.

The Business Committee called attention to the rule adopted at the last meeting, restricting the time for the reading of papers to twenty minutes, and that any motion to extend this time be ruled out of order.

DR. SQUIBB offered the following:

Resolved, That the rules of the last meeting be extended to this session, with the proviso that the Business Committee be allowed, at their discretion, to extend the time by special arrangement.

This resolution permits the Business Committee, in case few papers are offered, to extend the time for all papers if time permits, and to enforce the rule if time will not permit.

The Business Committee announced that the reading of certain scientific papers was now in order.

DR. H. G. PIFFARD read a paper on the

PATHOLOGY AND TREATMENT OF ACNE.

After reviewing the views of Wilson, Tilbury Fox, Duhring, and other writers, with regard to the various local causes which have been assigned for this disease, he expressed the opinion that in the great majority of cases acne is not primarily a disease of the skin, but is dependent upon diseases of other organs; local irritations are secondary, and have little to do with causing the eruption. He summed up the principal causes to be (1) masturbation, (2) gastro-intestinal disorders, (3) amenorrhœa and uterine disease, (4) certain conditions of the blood. These several causes were discussed, and the author then considered the rational treatment by removal of the causes, and cited several cases in illustration. The termination of this paper was cut off by the expiration of the allotted time.

A paper on

PUERPERAL ECLAMPSIA, AND ITS MANAGEMENT BY INDUCTION OF PREMATURE LABOR,

was presented by Dr. W. W. POTTER, of Buffalo, read by title, and referred for publication.

DR. C. R. AGNEW, of New York, also presented a paper, entitled,

THE DANGERS OF SPECIALTIES IN MEDICINE,

which was likewise referred.

DR. SAMUEL SEXTON, of New York, read a paper on

REMOVAL OF FOREIGN BODIES FROM THE EAR.

Although foreign bodies are comparatively rare in adults, except in cases of lunatics, who sometimes fill their ears with foreign substances, probably with a view of keeping out noises, still they do occur, especially with bathers, who get sand and small shells in the ear. Sometimes a pin is used to scratch the ear, and it slips into the meatus; its point becomes embedded, and it is difficult to extract it from the swollen tissues; it cannot be pushed backward to relieve the point without endangering the membrana tympani. In children, small seeds and similar substances are often inserted in play, and may become impacted in different portions of the canal. In removing such foreign bodies, if the patient is difficult to control, etherization may be required. The head should be placed in the proper position, and the syringe used judiciously. Rupture of the membrana tympani may be caused by forcible syringing, especially when softened by disease. Improper syringing may also cause further impaction of the foreign body, The attempt at removal should not be made unless instruments are at hand for any emergency that may arise. He had been surprised by finding the large number of instruments which had been specially devised for the removal of foreign bodies from the ear; many of these are useless for the purpose, and most of them unnecessary.

He exhibited a new instrument devised by himself

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for the purpose of seizing any foreign substance which can be impressed. It was in the form of a probe, ending in a ring at each extremity, which was inserted past the bean or other substance, and thus readily withdrew it. The end is a fine spoon-shaped loop, which can be easily inserted beyond the body; the handle is bent at an obtuse angle, so as to keep the hand out of the line of vision. He said that it was by no means necessary to have this in all cases; in many the ordinary probe is all that is needed. It is sometimes necessary to incise or lacerate the tissues, in order to remove a foreign body, but this should never be done unless the proper instruments are at hand to complete the extraction, as the consequent swelling only increases the difficulty of subsequent attempts at removal. Care should be taken not to force the foreign body deeper into the canal against the tympanum; not only on account of the danger of pressure upon this structure, but because instruments cannot be passed beyond the obstruction to remove it without injuring the membrane.

His rule is to always make sure that a foreign body is really present before making efforts at extraction. He had succeeded in some cases where the body was deeply embedded in the canal, in removing it with the aid of a delicate pair of forceps, which he had made, which acted like bullet forceps, seizing the impressible body with tooth-like points, upon which the body may revolve, accommodating itself to the canal in withdrawal.

DR. D. B. ST. JOHN ROOSA opened the discussion on Dr. Sexton's paper, and deprecated the idea that all cases of ear disease require special and complicated instruments. He believed that the ear instrument of Prof. Gross would be found all that is necessary in the majority of cases, and he condemned the use of forceps, stating that a syringe and warm water are better, because safer and more efficient.

In cases of obstinate impaction of a foreign body, recognizing the danger of inflammation that might be caused by it, he believed that the operation of dissecting off the auricle might aid, which was recommended some years ago. There is no trouble about it, but the canal is not as freely exposed by the operation as might be supposed, but it is a little better for the surgeons, although not much better. The difficulty in removing foreign bodies does not occur at the beginning; it is comparatively easy to remove them from the position in which they are placed by the child, but the difficulty is caused by pushing the body further in by ill-directed attempts at extraction. The difficulty experienced in some instances is well shown by the large number of instruments that have been invented for their treatment.

DR. KNAPP, of New York, endorsed the remarks just made, especially with regard to the danger of the forceps; he had abandoned their use in both diseases of the eye and ear. He had, since then, made experiments upon the cadaver, with suction forceps, for the removal of bodies impacted in the ear, and had found them excellent for the purpose of removal of impressible bodies like locust beans or cherry pits.

The usual form of forceps only force the foreign body further in, especially glass beads. For these the hook is better. He had an instrument made for him, which was a double hook, which might be used where the body gets into the tympanum; it cannot be removed with the forceps or other instruments; the syringe will sometimes succeed in bringing it out to where it can be reached with a hook. When the canal is nearly occluded by granulating tissue, and there are otorrhœa and swelling, he recommended washing out the canal with alcohol diluted or full strength, and after wiping it out to fill the canal with boracic acid; this will cure the otorrhœa and reduce the granulations.

With regard to the case of a foreign body located in the depth of the tympanic cavity, there is a danger that it may lead to inflammation and meningitis. Cases are on record in which the highest surgical skill was required to heal them. There is a case on record where the auricle was dissected off and the mastoid process chiselled so as to release a foreign body and save the patient. In cases where meningitis was threatened he should not hesitate to chisel or trephine the cranial bones to remove a foreign body.

DR. GRUENING, of New York, said that the syringe was only necessary in the great majority of cases, and he recommended the general practitioner to depend upon it in preference to any form of instrument.

DR. A. H. SMITH, of New York, referred to a suggestion by the late Dr. Smith, of New York, to pass a brush or piece of twine wet with adhesive substance, like shellac dissolved in alcohol, which dries quickly and enables the body, through adhesion, to be drawn out.

The PRESIDENT mentioned a case in his practice, in which a small hard-winged bug had been in the ear of a boy, ten years of age, for from three to five months. It was covered with cerumen, and gave rise to no disturbance beyond deafness.

DR. WEBSTER insisted upon the fact that no one should attempt to remove a foreign body unless he can see it with the aid of a good head-mirror and reflected light. This is the only safe rule.

DR. MATTHEWSON said that a foreign body may remain for a long time without causing any disturbance, so that the friends of the patient need not be clamorous for immediate treatment.

DR. SEXTON, in closing the discussion, said that he would reply to some criticisms that had been made, that his paper had presupposed some knowledge of the use of the syringe by the members, and he had, therefore, simply called attention to the danger of its improper use. With regard to trephining the mastoid, he thought that it would only be necessary in case the foreign body was a bullet.

DR. W. B. CHASE read a paper on

HOT WATER AS A HÆMOSTATIC,

in which he recommended its use in surgical cases as well as obstetrical. It does not interfere with primary union; on the contrary, it rather prevents excessive inflammations. It has been useful not only in post-mortem hemorrhage, but also in bleeding attending uterine growths. He reported a case in which such a growth was attended by profuse bleeding, and the patient was in a condition of extreme collapse. The bleeding was checked by hot water, the tumor was removed, and the patient recovered ultimately. The temperature was preferred at from 105° to 130°.

DR. CORNELIUS R. AGNEW, of New York, read a

REPORT FROM THE DELEGATION TO THE AMERICAN MEDICAL ASSOCIATION.

He said that he had proceeded to St. Paul, and on the day before the meeting had attempted to register, but his credentials were not accepted, the Secretary stating that the Judicial Council had directed him not to receive any delegate from the Society of the State of New York. He then registered as a delegate from the New York County Medical Society. He called attention to the persistent efforts of a member of this Society to create professional feeling against the State Society at this meeting, and spoke of his receiving many expressions of sympathy from other members of the Association.

To the report was appended a certified copy of the letter sent by L. A. Sayre, M.D., the other delegate, declining to serve on the ground that he was not in sympathy with the action of the Society with regard to

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the repudiation of the Code of Ethics, which had been read at the meeting of the Association.

DR. ROOSA, commenting upon this report, said that there was a letter in possession of a member present, charging Dr. Sayre with consulting with a homœopathic practitioner.

The letter was called for.

DR. SQUIBB said that it was unjust to read the letter in the absence of Dr. Sayre. He did not doubt the existence of such a letter; it was merely a question of veracity between its author and Dr. Sayre.

On motion, the further discussion of the subject was referred to the evening session.

AFTERNOON SESSION.

The meeting was called to order at 3 o'clock, by the President.

The COMMITTEE OF ARRANGEMENTS announced the following as

MEMBERS BY INVITATION:

Dr. S. S. Cartwright, of Roxbury; W. W. Seymour, of Troy; Hiram Wiggins, of Elbridge; H. H. Deane, of Watertown; Bunchanan Burr, of New York City; L. E. Holt, of New York City; C. W. Green, of Albany; J. W. Whitbeck, of Rochester; John E. Burdick, of Johnstown.

DR. GEO. H. FOX, of New York, read a paper upon the

TREATMENT OF CHRONIC URTICARIA.

After discussing the etiology of urticaria, which he declared to be usually dependent upon (1) some functional disorder of the digestive apparatus, and (2) an abnormal condition of the sympathetic nervous system, he said that the means for the cure of chronic urticaria, must always depend upon recognition of this fact, and the use of internal remedies, especially by removal from the intestinal tract of irritating material, and removal from the blood of the waste products of tissue metamorphosis. Among the remedies which had been found especially useful, were alkaline diuretics, saline purgatives, bicarbonate of sodium (ʒss in carbonic acid water half an hour before each meal); gelsemium also has a beneficial action. It is sometimes advisable to restrict the diet, and direct the patient to abstain from certain articles of food, which are especially irritating; and those purgatives which allay irritation, like rhubarb, are often required. When much irritation is present, bismuth has special advantages. Sulphurous acid, well diluted, will often produce a speedy effect upon the eruption; it probably acts by arresting fermentation in the alimentary tract. A case had been reported by Dr. Shoemaker, of Philadelphia, of chronic character, in which all the usual remedies had been used without avail. On recommendation of Prof. Da Costa, sulphurous acid was then given, with alkaline baths at night. The effect was almost magical, and the patient was relieved at once and cured in a few days. The lecturer had used this treatment with equal success. A lady who was apparently otherwise in perfect health, was troubled with chronic urticaria; the only evidence of gastro-intestinal derangement was a slight coating of the tongue. Many remedies had been used without relief, but upon giving this acid there was marked improvement on the second day, and a cure followed within a week.

A second class of cases are those depending upon some disorder of the nervous system due to the presence of certain substances in the blood. To this class belong the cases of urticaria caused by the administration of remedies such as quinine, cinchonidia, etc. When urticaria occurs in the course of ague, it is a question in some cases, whether it is attributable to the malarial poison or to the remedies given. Physicians should bear in mind that some patients have a special susceptibility, and a mininum dose of the cinchona salts will cause an urticarial eruption. In other cases, the eruption is symptomatic, and is cured by quinine. Cases have been recorded when the urticaria was periodical and appeared at the same hour every day. For the neurotic cases belladonna, or atropia has been used with good results; salicylate of sodium (gr. j every hour until some physiological effect has been produced) has been recommended; larger doses are more likely to cause the eruption than to allay it. Arsenic is an old remedy often used, but more calculated to relieve than to cure the disease, a fact doubted by Tilbury Fox, and denied by Hebra. The bromide of potassium is sometimes said to be curative, by Duhring. The balsam of copaiba has been recommended in drop doses as curative, but the lecturer had not found it so in his experience. Dr. Heitzman had recommended fluid extract of ergot, which had been also useful in the hands of other writers. Wine of iron, and nettle tea have been reported as producing cures.

From the foregoing, it is seen that the treatment of urticaria is generally empirical and highly unsatisfactory. The apparent value of remedies has been based upon careless observation, as they have given when the evanescent eruption was about subsiding, as it would do of itself without any remedies whatever. The successful treatment of urticaria must depend upon a knowledge of its etiology in each case; and a knowledge of this kind is more essential to its cure, than any amount of experimentation with unknown or known remedies

DR. ROCHESTER recommended in acute cases an emetic dose of ipecacuanha, to be repeated if needed; he had found it very effective. Possibly the secondary diaphoretic effect may have something to do with the result. In chronic cases after using ipecacuanha, he places his patient upon a milk diet (four-fifths of a quart a day), and only a small amount of bread, with no medicine whatever, and referred to a case in which this had proved successful.

THE COMMITTEE ON PRIZE ESSAYS

reported, through its chairman, that only one essay was submitted for examination; it was entitled "*Cancer—A Pathological Study of Cancer of the Lip.*" It was well written, and evinced knowledge of the literature of the subject, but had not contained any special original features which would render it a proper subject for a prize. The Committee expressed its regret that the author of the paper had violated the rule, inasmuch as he had announced his identity by quoting from a former prize essay as written by himself. This is the more remarkable, as an essay offered by the same gentleman was rejected at the last meeting for precisely the same reason.

The Committee requested that all future communications to it shall be written by the type-writer before being submitted in competition.

On motion, the report of the Committee was accepted, and the request embodied in a resolution, which was adopted.

The PRESIDENT appointed the following members a

COMMITTEE ON THE RECOMMENDATIONS CONTAINED IN THE PRESIDENT'S ADDRESS,

Drs. J. C. Hutchinson, of Kings; T. D. Strong, of Chatauqua; and Wm. S. Ely, of Rochester, and requested a report at this meeting.

The following names were read by the Secretary, they having been elected by the several Senatorial districts as members of the

NOMINATING COMMITTEE:

1. F. A. Castle, of New York; 2. P. R. H. Sawyer, of Westchester; 3. Maurice Perkins, of Schenectady; 4.

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Conant Sawyer, of Essex; 5. J. D Spencer, of Watertown; 6. George Douglass, of Chenango; 7. H. D. Didama, of Syracuse; 8. F. F. Hoyer, of Erie, and the President appointed Dr. S. O. Vander Poel, of New York, member-at-large.

The next paper was entitled

THE PATHOLOGY AND RADICAL CURE OF HAY FEVER, OR HAY ASTHMA,

by DR. JOHN O. ROE, of Rochester.

All writers on hay fever, with a marked unanimity, agree that it is a most singular disease, that its cause is uncertain, its pathology unknown, and its treatment most unsatisfactory. This absence of definite knowledge has arisen not from lack of patient, careful, and close observation to determine its causes, but from the fact that these causes have been studied independently, that their relations to the tissue in the nasal passages, which is the part especially affected in this disease, has not been taken into consideration, and that the conditions in this tissue which render it susceptible to these influences have been entirely overlooked.

This fact is especially significant, for, in the examination of the various and more or less elaborate works on hay fever, we find no mention of any examination into the objective condition of the nasal passages nor of any investigation as to the existence of any localized diseased condition which may predispose to the affection. This is made more conspicuous when we consider the amount of labor expended by the many hard workers during the past few years, who have been carefully investigating the conditions of the tissue of the nasal cavity to discover the cause and means of cure of chronic nasal catarrh.

These investigations have revealed that the cause of nearly all of the most obstinate forms of nasal disease, which have been considered incurable, can be removed, and the diseases more or less effectually and permanently cured. They have also shown the nose to be a very important organ for maintaining, in a normal condition, all the organs with which it communicates, and have revealed relations existing between diseases of the nasal cavities and disorders of other, and sometimes distant, organs, which were before unsuspected.

As a further result of these investigations, it is clearly demonstrable that the special cause for hay fever does not alone reside in a special peculiarity of a special irritant, which affects certain individuals in a peculiar manner, but in a special susceptibility of the tissue of the nasal passages of some individuals to be irritated by these substances when brought in contact with it; that this susceptibility of this tissue is occasioned by disease, either latent or active; that the removal of this diseased tissue will remove the susceptibility to irritation by these substances; and that the train of symptoms which appear to be more or less of a constitutional nature, producing the asthmatic and nervous symptoms (which have led to the classification of the affection as a neurosis), are but the result of the irritation of the Schneiderian mucous membrane, which is reflected to other parts and organs through the agency of the sympathetic nervous system, causing irritation in these organs, which is augmented by the consequent obstruction to nasal respiration during the attack.

The importance of unobstructed nasal passages, and free nasal respiration is generally recognized, but in seeking for the cause of the symptoms which arise when these passages are obstructed, the nose is quite commonly overlooked. It is for this reason that I have purposely discussed more or less in detail this sympathetic connection which exists to a greater or less degree between the nasal cavity and other parts and organs, and have endeavored to make it clear that the train of symptoms attending this affection, as suffusion and irritation of the eyes, sneezing, asthma, and other local or systemic derangements, is the result of this intense local irritation set up in the tissue of the nasal passages by these irritating substances.

In this relationship I also wish to point out that latent, as well as active, disease of this tissue will in many instances excite in it an hyperæsthesia or an inordinate sensitiveness to local impression.

The conclusion that this hyperæsthetic tissue of the nasal passages sustains a certain relation to the causation of hay fever has been reached in a natural manner, by observing from time to time that patients who were under treatment for nasal diseases, and who also suffered severely from hay fever during the summer months, were relieved, or their attacks lessened in severity, in proportion as these diseased conditions in the nasal passages were removed. And that, in cases where this hypertrophied turbinated tissue was removed altogether, the patient became entirely exempt from subsequent attacks.

It has been observed, furthermore, that in every instance in those who were subject to hay fever, more or less disease or hypertrophy of this tissue existed, although hyperæsthesia of this tissue is not induced in but a portion of those in whom this hypertrophy is found. And, as this hypertrophy is the cause in nearly all cases of what is termed nasal catarrh, so we find that hay fever is most prevalent in those regions where there is a predisposition to catarrhal diseases, and where the atmospheric conditions are such as to cause these hypertrophies.

A number of illustrative cases were then given.

Thus, from the study of hay fever, in the light of the most recent investigations as to its cause, and our present knowledge of nasal diseases and their influence on other organs, we may draw the following conclusions:

1st. That hay fever is an affection not confined to any age, sex, or condition in life.

2d. That it is excited by the pollen of flowers or grasses, dust, or other irritating substances floating in the atmosphere, which are brought by inhalation in contact with the nasal and bronchial mucous membranes.

3d. That the nasal mucous membrane in certain individuals is very susceptible to the irritating effect of these substances, while in others it is not.

4th. That this hyperæsthesia is associated with or occasioned by a diseased condition, either latent or active, of the naso-pharyngeal mucous membrane, and with a hypertrophied condition of the vascular tissue covering the turbinated bones and the lower portion of the septum.

5th. That the systemic disturbances, such as asthma, etc., are the effect of the local irritation of this diseased tissue in the nasal passages, which is reflected to the larynx, bronchi, and lungs, through the correlating functions of the sympathetic ganglia connecting these different regions.

6th. That the treatment during the attack can only be palliative, such as to soothe the inflamed parts, and to quiet the systemic disturbance which may be occasioned.

7th. That in most cases the only effective relief during the attack consists in going to a seaport or mountainous region, or to any locality where the air is free from the substance which produces the irritation.

8th. That curative measures can only be adopted when the individual is free from the attack.

9th. That the removal and cure of the diseased tissue in the nasal passages removes the susceptibility of the individual to future attacks of hay fever.

This paper was discussed by Drs. Wey, Sabine, A. H. Smith, Green, and Pomeroy. Doubt was expressed

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as to the efficiency of the measures proposed, and attention was called to the instantaneous relief experienced by some persons on change of locality. It was thought that the cause could not be a local organic one, for if it were it could not be so readily relieved without local treatment.

DR. ROE replied, that the cases referred to were from five to thirty years' standing, and had been free from disease for from one to three years after operation. He believed that the operation rendered the patients less susceptible to various irritants, which are exciting causes of the diseases.

The BUSINESS COMMITTEE read a list of papers to be presented this afternoon.

The SECRETARY read from the By-laws the provision with regard to the registration of delegates prior to voting.

The Committee of Arrangements announced the following as

MEMBERS BY INVITATION.

Drs. T. Z. Gibbs, of Fort Ann; Erskine G. Clark, of Sandy Hill; E. H. Squibb, of Brooklyn; Maurice T. Lewi and Herman Gendell, of Albany; R. C. McEwen, of Saratoga Springs; C. C. Bartholomew, of Ogdensburg; A. M. Phelps, of Chambersburg; H. S. Case, of Albany; I. N. Goff, of Cazenovia; G. D. Dunhan, of Plattsburgh; G. P. Clarke, of Syracuse; and D. F. Dayton, of Potsdam.

An obituary notice of Dr. Deville White was presented by Dr. George W. Douglass, and ordered to be published.

DR. MITTENDORF, of New York, read a paper on

A NEW METHOD OF INTRODUCING REMEDIES INTO THE EYE.

After referring to the ordinary methods of using mydriatics in solutions, ointments, gelatine disks, etc., he pointed out the objections to solutions on account of their liability to form fungoid growths at the expense of the alkaloids, of their requiring frequent renewal, and their expense, and also to the danger of administering more of the remedy than is intended to a struggling patient, part of it perhaps getting into the air-passages or the mouth. He also alluded to the fact that some persons are much more readily influenced by minute doses than others. He recommended in place of these, as more convenient and equally efficient, triturations with gum Arabic, of various alkaloids, atropine, eserine, etc. These powders admit of accurate subdivision for exact dosage, are soluble in the secretions of the eye, and are perfectly permanent and efficient. They are dusted in with a camel's-hair pencil, just as calomel is dusted into the eye. Of course, a special pencil should be used for each bottle. He had used these triturations for more than a year, with complete satisfaction. The medicament can be divided up into small powders, and entrusted to the patient without danger.

Before taking his seat he exhibited a new eye-speculum which is self-retaining.

DR. POOLEY spoke in favor of ointments for applying alkaloids, which had the advantage that they may be rubbed on the outside.

DR. ROOSA said that organisms forming in these solutions did not render them worthless, and he had not known of any case where they had proved injurious to the patient from this cause.

DR. SQUIBB said that fungi develop at the expense of the alkaloid, it is true; but they do not render the solution much weaker, even after a long time. The best plan, in his opinion, is to make solutions, for such purposes as hypodermic injections or collyria, with salicylic acid. A few grains of salicylic acid in four ounces of water make a solution in which alkaloids may be dissolved, and can be kept for years without the growth of fungi. The small amount of acid is without any physiological effect, either when dropped in upon the eye or used subcutaneously. With regard to eserine, he stated that the difficulties usually found in weighing and dispensing it on account of its deliquescent character, can be overcome by using the salicylate of eserine. This is not deliquescent, and can be readily weighed; its solutions do not form fungi. He objected to the combination of alkaloids with vaseline, as only mechanical mixtures; vaseline being a paraffine body in which alkaloids are not soluble. In place of it he suggested oleic acid, which makes a definite chemical combination with alkaloids, and is more easily absorbed by the skin.

DR. KNAPP mentioned a solution of atropine which he had which had been kept for eight years, and still was as active as ever when used as a mydriatic.

DR. GRUENING said that he had been in the habit of keeping a saturated solution of boracic acid for making solutions of atropine, homatropine, eserine, etc. He had found that it not only does not irritate, but is actually soothing to the eye. It is both antiseptic and antiphlogistic. He has kept solutions for many months without developing fungi. He did not think these organisms were injurious, but only inelegant, and solutions containing them should not be used. He had also used boracic acid solution for the astringents, such as the sulphates of copper and zinc, acetate of zinc, etc.

DR. MITTENDORFF said that he had not seen any bad results from solutions containing confervoid growths, but he would prefer not to use them. He did not recommend the abolition of ordinary solutions, but he thought that triturations will be found useful by the profession. With regard to the instance cited by Dr. Knapp, he thought it made a great difference whether the bottle was kept sealed or was opened from time to time in the patient's chamber.

The Committee of Arrangements reported the following gentlemen as

MEMBERS BY INVITATION:

Drs. Wm. Hailes, of Albany; G. S. Munson, of Albany; and John Edwards, of Greenville.

DR. INGALLS, a duly accredited delegate from the Massachusetts State Medical Society, was introduced, and expressed gratification at the honor of being present at the meeting.

A communication was received from MR. CLARK BELL, President of the Medico-Legal Society, concerning the revision of the lunacy laws, the regulation of inquests, and other subjects.

On motion, it was referred to the Committee on Legislation, with instructions to report at the present meeting.

DR. DANIEL WEBSTER read a paper entitled

SYPHILITIC DISEASE OF THE LABYRINTH.

The cases narrated in this paper occurred in the practice of Drs. Agnew, and Webster. They were interesting from the rarity with which such cases are diagnosticated during life. The principal symptoms mentioned in the books are deafness, with an ability to hear the test of the tuning-fork as usually applied. In one of the cases there was added to this autophony, the symptoms of the patient's voice sounding to himself as if he spoke into a barrel. This case after being deaf for a year gradually improved. One morning he found himself suddenly and entirely deaf in one ear, and afterwards both ears were involved. This patient was a physician 45 years of age; at 25 he had hemoptysis, and it was believed pulmonary disease existed. He recovered under the use of whiskey and out-door life. Four months before coming under treatment he had a sudden attack of tumultuous and violent action of the

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heart lasting 30 hours, which was believed to be due to nervous exhaustion and professional overwork. He then became subject to neuralgic pains in the head, and subsequently became deaf in one ear. Examination revealed nothing special in his ear. He had autophony. This case was believed to be malarial, and he was put on cinchonidia and milk was added to his diet. It was afterwards learned that he had had an ulcer upon his neck three months previously. He was now put on iodide of potassium. Upon examination, ulcers were found in the throat and mucous patches in the mouth. The hearing improved under the iodide treatment; he was then seen by Dr. Bumstead. Five years later he had largely regained the hearing power of his left ear; he had been taking blue mass pills (grs. six to ten daily) almost steadily for a year without salivation. The case proved very obstinate. The second case was a druggist, 43 years of age, who contracted syphilis in the army in 1862, followed by the usual symptoms. In 1878 he had ulcers over the sternum, and six months later had an exophthalmos probably caused by orbital periostitis. He also complained of constant tinnitus in the ear, with vertigo, and loss of hearing followed. Mercurial inunctions were used, and afterward a saturated solution of potassium iodide after meals was given, the dose being gradually increased to twenty drops three times a day. When seen by the writer he had been taking this all summer, and was advised to stop the treatment. There was no external appearance of disease in the ear. On inspection the Eustachian tube was pervious. He was deaf in his left ear and was quite dizzy. Four months ago he received a blow on the right temple, and about two months later, after experiencing some tinnitus, completely lost the sense of hearing. The tuning-fork was held between the teeth and was faintly heard in the right ear. He was advised to return to the mercurial inunctions and the saturated solution of potassium iodide.

January 19, the patient's condition was improving; the click of nails could be heard at two and a half inches in the left ear. The tuning-fork was heard only in the left ear; the right ear could not be made to hear it either through aerial or bony conduction. The diagnosis was labyrinthic disease of the right ear, with chronic middle-ear disease of left ear.

The BUSINESS COMMITTEE interrupted proceedings to present DR. HENRY W. WILLIAMS, of Boston, an accredited

DELEGATE FROM THE MASSACHUSETTS STATE MEDICAL SOCIETY.

Who made some congratulatory remarks, which were responded to by the President.

DR. UPHAM, a

DELEGATE FROM THE VERMONT MEDICAL SOCIETY,

was also introduced and welcomed.

DR. R. D. POMEROY read a paper on

SYPHILITIC INFLAMMATION OF THE MIDDLE EAR, THE LABYRINTH, AND ACOUSTIC NERVE.

The principal symptoms of internal ear diseases are usually rapid and constant loss of hearing, vertigo, and tinnitus. In syphilitic cases there is also pain in the spine, running down the arms; sometimes loss of memory and optic neuritis show associated cerebral disease. There may also be facial paralysis as a not infrequent symptom, due to involvement of the nerve trunk as it enters the meatus Fallopius. This is more likely to occur than in ordinary middle-ear disease. Hemiplegia not rarely occurs. Strabismus from paralysis of the ocular muscles also may appear. As to the ear itself, ordinarily there is no discharge, but an affection of the tympanum occurs in which the membrane melts down without suppuration. These changes in the middle ear may go on to a considerable extent without giving any signs. On inspection of the meatus a little redness, or slight degree of opacity, will only be found to exist to cause suspicion of this complication. But the most likely point to give rise to suspicion of syphilitic middle-ear disease is the history of the patient. As to the pathology in the great majority of cases of syphilitic ear disease, there will be found to exist in the middle ear granulations which interfere with the movements of the chain of ossicles. In the present state of aural pathology we are not warranted in making use of the term labyrinthine disease, except in those cases in which post-mortem examination shows the disease to be limited to this locality. In making a diagnosis, the syphilitic history, the obstinacy of the case under ordinary treatment, and the efficiency of specific treatment, show the nature of the disease. In many cases the appearance of the throat will put the practitioner on the right track. The appearance of the membrane cannot be relied upon; it may be dry, opaque, or little reddened, but these symptoms do not progress with the disease. Rapid and sudden loss of hearing, autophony, false and double hearing, are also valuable symptoms.

These papers were discussed by DR. ROOSA, who said that the diagnosis between labyrinthine disease and middle-ear disease is very important to make. He observed that some deaf persons hear better in a noise, and laid down the rule, if a patient hears better in a noise he has disease of the middle-ear. If he does not hear better in a noise, whatever else he has, he has disease of the labyrinth.

DR. SEXTON denied that this point was of value in the differential diagnosis, as it is not constant.

DR. GRUENING read a paper on the

TREATMENT OF INVETERATE PANNUS BY INFUSION OF LIQUORICE BEAN (ABRUS PRECATORIUS)

and reported several cases of successful result. The fresh beans from Brazil were those used, and recommended by Dr. Wecker, of Paris.

DR. POOLEY recommended the method of treatment described.

DR. ELSBERG gave a demonstration of the

USE OF THE TONGUE SPATULA,

and exhibited his instrument first presented to the Society nineteen years ago. He claimed that the tongue should be pressed from before backward, and from below upwards—just the reverse of the ordinary practice.

DR. DAVID LITTLE reported a successful case of

OVARIOTOMY WITHOUT ANTISEPTIC TREATMENT

other than cleanliness and plenty of fresh air.

The following were announced as

MEMBERS BY INVITATION:

Drs. C. B. Herrick, of Troy; R. H. Sabin, of West Troy; W. B. Sabin, of West Troy; E. P. Tefft, of Albany; S. O. Vander Poel, Jr., of Albany; Franklin Townsend, of Albany.

Adjourned.

FIRST DAY.—EVENING SESSION.

The PRESIDENT announced that the object of this special session was the consideration of the resolution offered this morning in reference to

THE NEW CODE.

DR. SQUIBB moved that the Society go into a Committee of the Whole, for the consideration of his amendment.

The resolution, after objection by Dr. Ely Vander Warker, was carried.

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The President called Dr. ALEX. HUTCHINS, of Brooklyn, to the chair. The Secretary read Dr. Squibb's resolutions.

DR. SQUIBB presented an argument in favor of their adoption.

DR. ELSBERG moved that the committee report adversely on the resolutions.

DR. ROOSA made a lengthy address opposed to changing the Code as adopted at the last meeting. He said that the opponents of the new Code used arguments worthy of the seventeenth century, and that the consent of the American Association was not necessary for the adoption of the Code. He continued as follows: "The Code will emancipate the medical profession. It is assumed that, if we continue this Code in force, we will immediately enter into brotherly relations with the homœopathists or eclectics. It is not so. We shall not ask them for assistance, but if any poor uninstructed human being wants assistance, we want the right to give it. We are not going to surrender to the homœopathists. This is not a question of drugs; it is a question of ethics. The whole American educated public has been laughing at this restricted, trade-union Code."

DR. PIFFARD replied to Dr. Squibb, denying his premises.

DR. HOPKINS read a plea in favor of the new Code.

DR. DIDAMA, of Syracuse, made a lengthy address, in which he expressed his high respect for the American Medical Association, and defended its action in refusing admission to its delegates from this Society. The repeal of the Code severed all connection with that Association. This action was taken by fifty-three men out of the three or four thousand in New York. Those in favor were influenced by a few prominent specialists, who clamored that they did not themselves wish to consult with irregulars, but they earnestly desired that others might have this privilege.

DR. ROCHESTER asked that the subject be considered from a common-sense standpoint. He denied that the abolition of the Code of the American Medical Association was demanded by humanity or progress. He said it was an advance backward. He said that the American Medical Association had been denounced on this floor as a junketing, Rip Van Winkle Association. He claimed that it contained the best men in the profession, from every State in the Union, New York included. He is a permanent member of both Associations, but would rather give up his membership in this Society than in the National.

DR. GOULEY offered the following substitute for Dr. Elsberg's motion, which the chair decided was virtually stating again the resolution of Dr. Squibb in other words.

Resolved, That when this Committee rises, it shall report to the Association in favor of repealing the new Code enacted by this Society in 1882.

DR. GOULEY appealed from the decision of the chair.

DR. VANDER POEL said that this was begging the action of the Society, as it was attempting to bind the Society by a majority vote to what really requires a two-thirds vote to be adopted.

DR. C. R. AGNEW read a carefully prepared argument, in which he claimed that in adopting the new Code the Society had merely put itself in accord with the laws of the State, which clearly recognized the existence of other classes of practitioners of medicine. "The man," he said, "whom the State has pronounced to be a legally constituted practitioner you cannot disfranchise. Repeal the new Code, and you put this Society in opposition to the policy of the State, and you attempt to coerce this Society into an attitude which no thinking man outside our profession would take."

After considerable confusion, DR. SEYMOUR, of Troy, got the floor, and made a spirited speech, after which he read a telegram received from Dr. Lewis A. Sayre, stating that he was confined to bed by sickness, and denying the charge made at the morning session.

DR. J. C. HUTCHISON, of Brooklyn, presented a memorial as follows:

"The undersigned members of the New York County Medical Society hereby express their belief that it is unwise to abandon the Code of Medical Ethics instituted by the American Medical Association in 1847. That any modification that may be advisable should be made by the body in which the Code originated, representing, as this body does, the medical profession of the United States, and that we are therefore in favor of rescinding the action respecting the Code taken by the New York State Medical Society at the annual meeting in 1882. Signed: Alonzo Clark, Austin Flint, Frank H. Hamilton, and others."

There were one hundred and two signatures, and Dr. Hutchison stated that many more could have been obtained had it been started earlier.

On motion of DR. VANDER POEL, the Committee rose and reported progress.

The PRESIDENT requested Dr. Hutchins to remain in the chair. The report of the Committee of the Whole was received and adopted.

As the hour was getting late, it was agreed to vote on Dr. Squibb's resolution without further debate. The yeas and nays were called, and the resolution was lost by a vote of 99 to 105.

DR. ROOSA then offered the following, which was, on motion of Dr. Wey, of Elmira, laid over for one year:

The Medical Society of the State of New York, in view of the apparent sentiment of the profession connected with it, hereby adopt the following declaration, to take the place of the formal Code of Ethics, which has, up to this time, been the standard of the profession of the State.

With no idea of lowering, in any manner, the standard of right and honor in the relation of physicians to the public and to each other, but, on the contrary, in the belief that a larger amount of discretion and liberty in individual action, and the abolition of detailed and specific rules, will elevate the ethics of the profession, the medical profession of the State of New York, as here represented, hereby resolve and declare, that the only ethical offences for which they claim and promise to exercise the right of discipline, are those comprehended under the commission of acts unworthy a physician and a gentleman.

Resolved, Also, that we enjoin the county societies, and other organizations in affiliation with us, that they strictly enforce the requirements of this Code.

DR. J. G. ADAMS, of New York, read the following protest:

"As a delegate from the New York Academy of Medicine, I beg leave to report my protest against the recent action of the Society of the State of New York in regard to the Code of Ethics, and I charge that the Society, by its action in this matter, has assumed an attitude and adopted a policy in direct and open hostility to the honor as well as the best interests of the medical profession.

(Signed), J. G. ADAMS."

The Association then adjourned.

WEDNESDAY, FEBRUARY 7TH.—SECOND DAY.
MORNING SESSION.

THE PRESIDENT IN THE CHAIR.—After prayer by the Rev. Irvin Magee, the minutes of the preceding sessions were read and approved.

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The following gentlemen were made

MEMBERS BY INVITATION:

Drs. Thos. A. Foster, of Portland, Maine; W. L. Pierson, of Schenectady; H. M. Eddy, of Geneva; G. H. Newcomb, of Albany; C. S. Merrill, of Albany; W. H. Murray, of Albany; I. G. Johnston, of Greenfield, Saratoga Co.; A. B. Heusted, of Albany.

TREASURER'S REPORT.

DR. CHARLES H. PORTER, of Albany, presented his report as treasurer, which showed

DR.	Receipts from Dues, . . .	$2,694.53
	" " *Transactions* Sold,	607.50
	Total,	$3,302.03
CR.	Expenditures, Sundries, . . .	$1,011.56
	Printing *Transactions*, . . .	1,026.26
		$2,037.82
	Balance in Treasury, . . .	$1,264.21
	Balance to Credit of Merritt H. Cash Prize Fund, ...	$149.26

The report was referred to a committee, consisting of Drs. Perkins, Ely, and Vander Poel, who subsequently reported that they had audited the account, and found it correct.

THE COMMITTEE ON LEGISLATION.

DR. FREDERICK R. STURGIS, Chairman, reported that the bill for presentation to the legislature prepared and offered at last meeting was recommitted in order to make certain changes. A new bill is now offered in its place, providing for the formation of a Board of Examiners, with the view of throwing additional safeguards about the practice of medicine.

The second subject referred to this Committee was the recommendation of the late President, Dr. Jacobi, with regard to employment of children of tender years in factories. It reported that a bill had been prepared and would probably be reached at the present session of the Legislature.

With regard to matters referred from the Society yesterday from Mr. Clark Bell, with reference to commitments to insane hospitals, and improvement in the method of holding inquests. These matters are referred to the next Committee on Legislation, on account of want of time for their consideration.

The Committee asked the passage of the following resolution:

Resolved, That the sum of $500 be appropriated by the Medical Society of the State of New York, to be drawn upon written order of the Chairman of Committee, to meet the necessary expenses incident upon the passage of any acts affecting medical matters, which the Committee on Legislation may be instructed by the Society to attend to, and for any contingent expenses, and whatever surplus there may be shall be returned to the Treasurer of the Society.

The report was accepted.

DR. ELY VAN DE WARKER, of Syracuse, offered, as a substitute, the first recommendation of the Committee, a provision for the creation of a Board, to be appointed by the Board of Regents of the University of New York, and to contain representatives from different systems of practice of medicine, which Board shall be empowered to grant its certificate, which shall be the only authorization to practise medicine and surgery in the State of New York.

Withdrawn by Dr. Van de Warker.

DR. JACOBI denied the existence of different systems of medicine.

DR. VAN DE WARKER deplored tinkering with medical legislation, and stated that the laws enacted by advice of this Society were lamentable failures.

DR. HOPKINS, of Albany, said that the Society had never yet gone before the Legislature and asked for the protection of educated practitioners.

DR. VAN DE WARKER acknowledged that he was in error in stating that the law of 1880 was passed for the relief of the profession; it was made to protect the quack.

DR. STURGIS denied that the law of 1880 protected the quack. In seventy cases of prosecution under its provisions in New York City, there had been only three failures to convict and drive out the irregular practitioners.

DR. MANLIUS SMITH said that a misunderstanding had arisen with regard to registration. The mere fact of registration does not make a man a qualified practitioner, but, on the contrary, often furnishes the evidence whereby the person can be convicted and prevented from practising.

The report was discussed at some length, the tenor of the remarks tending to show that the registration law of 1880 was inadequate to meet the requirements of the profession, as under it quacks of all kinds could register and thereafter deem themselves legally qualified to practice.

One of the members remarked that in his county an Indian doctor, adorned with war paint and feathers, rode into the village the other day in his chariot. He registered, and was now considered a legally qualified practitioner, and placed on a footing with other members of the medical profession.

On motion of DR. WEY, the resolution of the Committee was adopted.

A communication was received from MR. CLARK BELL, offering to read a paper. Referred to the Business Committee.

DR. VANDER POEL moved the following:

Resolved, That a committee of three, consisting of Dr. S. O. Vander Poel, of New York; Dr. E. M. Moore, of Rochester; and A. Jacobi, of New York, be appointed to confer with the Board of Regents in reference to medical examinations under Chapter 746 of the Laws of 1872, and that the Committee have power, on behalf of this Society, to recommend suitable persons for examiners.

Adopted.

THE COMMITTEE ON THE PRESIDENT'S ADDRESS

reported adversely to the recommendations, and that the annual address of the President be dispensed with in future, as the subjects of importance to the Society are embodied in the inaugural address.

The report was received and placed on file, objections being raised to its adoption.

DR. A. JACOBI, on behalf of the committee appointed at last meeting with regard to the establishment of special

HOSPITALS FOR CHILDREN'S CONTAGIOUS DISEASES,

made a partial report of progress, embodying certain resolutions adopted by the New York County Medical Society recommending the appropriation by the State of funds for the erection of such special hospitals for isolation and treatment of cases of scarlet fever, measles, diphtheria, etc.

A committee was appointed and obtained a grant of land and fifty thousand dollars to start such an institution on Manhattan Island, in New York City. It will be small, containing only forty or fifty beds, but it is believed that it is only the first of a series of such hospitals, not only for the poor, but also for the rich in different parts of the city. With the establishment of

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convalescent hospitals, where the cases can be isolated until danger of communication is past, then the small hospitals can be devoted to the actually sick. This new hospital is at the foot of Sixteenth Street, New York City.

Report adopted.

The following gentlemen were made

MEMBERS BY INVITATION:

Drs. H. M. Eddy, of Ontario, N. Y.; J. C. Carson, of Willard; I. De Zouche, of Gloversville; W. G. Tucker, of Albany.

THE CENSOR OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF SYRACUSE

reported attendance upon the examination, and that the graded course had proven highly satisfactory.

A paper was presented by DR. PAUL F. MUNDÉ on

THE ETIOLOGY AND TREATMENT OF CERTAIN FORMS OF NON-PUERPERAL UTERINE HEMORRHAGE.

In using the term hemorrhage, he wished to limit it to bleeding either during or between the menstrual flows.

1. It may be caused by simple erosion of the surface of the neck of the uterus. The diagnosis can only be made with the speculum. The cervix is seen to be roughened, red, and easily bleeding. He recommended exposure of the cervix with speculum, wiping it dry, and the use of nitrate of silver (ʒj to ʒj) thoroughly applied, and dry iodoform applied upon a pledget of lint. The tampon should be kept in for 24 hours, and then reapplied every day, or every other day, and be followed by injections of sulphate of zinc. Sometimes he uses caustics, or the actual cautery; pyroligneous acid, chromic acid; a surgical operation has been recommended by Emmet, consisting of paring the surface, and stitching the edges together.

2. Slight lacerations of cervix often bleed from touch; coition, or even in walking. Treatment consists in snipping off the granulations with scissors, and cauterizing the base with nitric acid. Trachellorrhaphy is required in gaping lacerations.

3. Chronic subinvolution is a very common cause of bleeding, both inter-menstrual and menstrual. He has been very successful by applying Churchill's tincture of iodine, and internally pills of strychnine, ergot, and iron. Hot-water injections are often valuable; galvanism is sometimes useful.

4. A prolonged bleeding may result from the retention of menstrual blood by a pin-hole external os, with dilated cervical canal, and secondarily from retroflexion. The treatment is by enlarging the external os by cervical incision, and trimming off the edges, making a funnel-shaped os, when the bleeding will cease.

DR. VAN DE WARKER said that he had found it very difficult to heal simple erosions by nitrate of silver, and had had good results with the actual cautery, which causes very little pain. This is not resorted to as often as it should be, although recommended by Courty, of late writers. Snipping off the surface with the scissors often exerts a powerful effect upon the erosion. He called attention to a point not mentioned—the hemorrhage attendant upon change of life, which is often really due to malignant disease of cervix.

DR. SHERMAN had found the best results from pure phenol, saturated with iodine, as recommended by Battey, of Georgia. It produces intense pain for a few seconds, but healing rapidly follows. Afterwards he uses the constant current.

REGISTRATION LISTS.

DR. F. A. CASTLE, of New York, offered the following:

Resolved, That the Committee on Publication be requested to publish in the future volumes of the *Transactions* of this Society, as an appendix, a revised list of the registrations of physicians in the offices of the County clerks of this State.

Resolved, That the sum of $150 be appropriated to cover the expense of securing the necessary information.

DR. ROBERT NEWMAN opposed the appropriation as unnecessary, it being the duty of the various county Societies to provide the information without expense, and offered to amend by striking out the second resolution.

DR. FISHER opposed burdening the *Transactions* by a mass of such material; he would rather advocate not printing the names of the county members from year to year. As to publishing such a list, he would advise a separate publication, and offered the following as a substitute.

Resolved, That such a list be prepared separate from the *Transactions*, to be revised from year to year, and that the Legislature be asked to publish the same.

DR. WEY opposed applying to the Legislature for pecuniary aid. He thought the list should be published by this Society, and the most inexpensive and ready way of obtaining this list is by including it in the *Transactions*.

DR. LEWIS said that the registry included many that are not legally qualified practitioners. The expense also would be greater than expected.

DR. DIDAMA opposed the introduction of this into the *Transactions*; he did not like to see his name in such company any more than he can help.

DR. ROOSA advocated the publication of the list.

DR. WEY moved to amend Dr. Newman's resolution by adding "and that the method of obtaining such information be referred to the Committee of Publication," which was accepted.

DR. PILCHER said that there is more in the resolution than is apparent on the surface, and seconded Dr. Fisher's amendment.

DR. FRENCH, of Montgomery, moved that the whole subject be laid upon the table. Carried.

THE NEW CODE.

DR. H. D. DIDAMA, of Syracuse, said: "Believing that the so-called new Code of Ethics is opposed to the opinions of the vast majority of the medical profession throughout the world, as expressed in the action of county, State, and National associations, and in discussions in medical journals; and believing also that this so-called code by removing wholesome restraints encourages a spirit of lawlessness and sanctions fraud, that it is hurtful, not only to the profession, but to the public, that its adoption sent a thrill of joy through the heart of every quack in the land and gave pain to the wisest and best of our associates in the regular profession; and believing that its repeal can be secured by concerted action of the friends of honesty and good order, I offer the following

AMENDMENT TO THE BY-LAWS.

Resolved, That all action taken at the annual meeting of 1882 in regard to changing the Code of Ethics be repealed, leaving the Code to stand as it was before such action was taken."

DR. WEY moved that the matter lay on the table, as the question was already covered by the resolution offered last evening.

DR. ROOSA denounced the resolution and stigmatized Dr. Didama's remarks as an insult to the majority of this Association, and hoped that the motion would be laid on the table.

DR. DIDAMA stated that he had expressed his private opinion, but he believed that he also expressed the opinion of the majority of the profession of this State, and of the Union, and of the world. He claimed his

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constitutional right to present an amendment to the By-laws.

The point of order was made that no motion was before the meeting, the author of the resolution consenting to allow it to lay over until next year.

An Obituary Notice of DR. S. M. VAN ALSTYNE of Richmondville, N. Y., prepared by A. Van Derveer, of Albany, N. Y., was presented.

DR. ELSBERG presented a *Forceps-écraseur* for the removal of nasal hypertrophies.

DR. H. KNAPP read a paper entitled the

TREATMENT OF CATARACT.

He laid great stress upon quietness after the operation; we must have union by first intention, or we will have a bad result. The first condition of primary union is clean operating. His usual method of operating is section of upper segment of cornea, and iridectomy, and extraction; and he is most careful to see that no fragment of capsule or other substance is in the wound. Listerian antiseptic precautions were carried out with great accuracy in a series of cases, but no better results had been obtained than with the same precautions without antiseptic substances. Ophthalmology requires cleanliness; it requires rest after operation, the more absolute the better.

He opens the capsule at its periphery not by laceration, but by incision with special instruments. The incision heals by first intention. The results to vision are just as good as where the lens is removed with the capsule, and the percentage of success is better. His series of cases will be published in the coming issue of the *American Archives of Ophthalmology*. Here he presents simply this provisional general report of results.

DR. DIDAMA asked if he would get as good results in an antiseptic atmosphere.

DR. KNAPP did not think he would, as he required absolute cleanliness, and advised antiseptic care. The eye is usually bathed in an antiseptic fluid—the tears.

SECOND DAY—AFTERNOON SESSION.

In the absence of the President and the Vice-President, Dr. Wey was called to the chair.

DR. ROOSA read a paper on

SOME OF THE DANGERS OF THE INJUDICIOUS USE OF QUININE.

In a paper read before the American Neurological Association, in 1874, the author called attention to some possible dangers to the organ of hearing from the injudicious use of quinine. From a series of experiments upon animals, undertaken in conjunction with Dr. Hammond, he had found congestion of the internal ear and injection of the optic papilla. In some there was also evidence of retinitis. There is a special danger in those cases where hyperæmia of the eye or ear already exists. He wished to call especial attention to this danger in the treatment of pyæmia. He had with Dr. Ely treated such cases without quinine, with success. He deplored the popular use of quinine for slight reasons, as, for instance, on no other provocation than merely an aggravated cold. He was behind no one in his appreciation of quinine in proper conditions, such as an intermittent fever or neuralgia, but he wished to recall to the attention of the profession this possible danger to the organ of hearing from the ordinary doses. Pyæmia is precisely the morbid condition in which quinine should not be given, for it is essential that there be no obstruction of the emunctories, and quinine just favors this obstruction. Again in aggravated colds, it is positively harmful by increasing hyperæmia of the delicate organs of hearing. He recommended the anodyne treatment and confinement of the patient in a warm room, instead of relying upon quinine, which increases tinnitus and general distress. In malarial cases proper he believed that the morbid poison would warrant a slightly increased danger to the organ of hearing. It is true that quinine reduces temperature. but some practitioners aim particularly at reducing temperature in all cases of fever without regard to the risk to the patient of inducing sudden collapse. In conclusion, he thought that popular use of a powerful remedy can usually be traced to careless practice in the hands of physicians.

DR. POOLEY endorsed the paper, and stated that cases of septicæmia are rendered worse by quinine. The use of quinine causes amblyopia and concentric limitation of the field of vision, in all probability due to embarrassment or disorder of the circulation, and ischæmia in retinal arteries and veins.

DR. JACOBI said that in large doses quinine depresses the heart. He insisted upon a distinction between pyæmia and septicæmia; in the former there is an embolic process, in the latter a specific poison; the action of quinine in preventing the wandering blood-cells from escaping from the vessels is well established (Cohnheim), and this is what is needed in pyæmia, but it is injurious in septicæmia.

DR. MANLIUS SMITH reported the results of some experiments upon himself, in which he found that cinchonia interferes with his vision, quinine not. Cinchonia decreased the action of the kidneys, quinine not, and cinchonia produced more nervous symptoms than quinine. On one occasion cinchonia destroyed his power of taste for a time.

DR. ROOSA said that information upon this subject is largely contained in special publications, which had not yet found their way into general medical journals. He did not agree with those who had just spoken, and denied that ischæmia of the retina is a primary condition: it is secondary, the first effect is that of congestion. He could not agree with Dr. Jacobi, and he had taken issue with him upon this subject before. He could not draw any such nice distinction between pyæmia and septicæmia, and he did not believe that any such essential difference between them existed.

The Business Committee introduced DR. HENRY W. WILLIAMS, of Boston, who made a verbal communication upon

ORBITAL CELLULITIS RESULTING FROM ERYSIPELAS.

Until two years ago he had not seen a case, and then, within a year, saw seven cases. He first proceeded to answer the question, are there any symptoms which permit a diagnosis to be made? He thought that there are. He had seen a case in consultation, which, during convalescence from erysipelas, had several facial abscesses, the patient complained of dull pain in the eye, and protrusion of the globe. Shortly afterwards there was loss of sight. The ophthalmoscopic appearances were those of anæmia. He decided to make punctures, in order to relieve and evacuate any collection of pus. No pus was obtained. For a few days the case went on, the symptoms became more aggravated, and on the third puncture, two and a half inches in depth, a moderate amount of pus was liberated. All the objective symptoms gradually disappeared, but the patient did not fully regain sight. His second case was a child, and the pus was found at a depth of two and a quarter inches; it was evacuated fully, and the patient recovered his sight. In another case no pus was found, but it was probably prevented from forming by the punctures. Several other cases were referred to. The diagnosis depends upon the interference with vision, swelling of tissues, chemosis, and protrusion of eyeball. In cases of localized necrosis there is more local tenderness. Early evacuation is the important point

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of treatment, and free discharge should be maintained in order to preserve vision. This is not a new disorder. Attention was called to it by Mackenzie and others, but he had not encountered such cases himself until last year.

DR. POOLEY reported a single primary case not dependent upon erysipelas. A single large opening had been made along the floor of the orbit, with free drainage. The loss of vision is probably due to effusion into the sheath of the nerve. These cases were described by Von Graefe and others as retro-bulbar neuritis.

DR. WILLIAMS did not agree with the explanation offered, as there was no evidence of choked disk or other change indicating infiltration of the nerve sheath. He thought it more likely that the blood supply is interfered with by exudation, resulting in pressure upon the retinal vessels before they enter the globe. He explained, in reply to a question, that if the circulation is suspended for any length of time, the vision is permanently lost just as in embolism of the central artery.

A paper by DR. DANIEL LEWIS upon the *Development of Cancer from Non-malignant Disease* was read by title.

The following gentlemen were made

MEMBERS BY INVITATION:

Drs. Louis Granger, of Tioga Co., Pa.; L. A. Tourtellot, of Utica, N. Y.; J. A. Browne, of Newport, N. Y.; Charles W. Hamlin, of Middleville, N. Y.

DR. E. D. FERGUSON, of Troy, Vice-President, took the chair.

DR. NEWMAN, of New York, read a communication upon the

USE OF GELATINE AS A VEHICLE FOR LOCAL MEDICATION,

and exhibited bougies for nasal, urethral, and vaginal medication, and rectal suppositories, made by Mitchell, of Philadelphia. These are elegant preparations, accurately divided, soluble, and flexible; exert a prolonged local action; are not affected by temperature; nor do they melt in the hand. With regard to urethral bougies, they should be introduced at night; they are first moistened with water, and then quickly introduced; after full introduction, the meatus is sealed with isinglass plaster; cotton may be placed over the meatus. They should not be applied in the acute stage of urethritis, when the urethra is so irritable that it cannot tolerate anything; and he would not recommend them in the early stage. As a rule, eight to ten bougies are sufficient to effect a cure in a case of gonorrhœa.

DR. INGALLS, of Connecticut, a visiting delegate, by invitation made some remarks upon

THE ABUSE OF QUININE.

He said that he practised some years ago along the Mississippi River, and he then observed the result of the reckless use of this valuable remedy. He thought that practitioners abuse the remedy by givig too large doses. If we can, by giving one grain every hour, get a patient under the physiological effect of a drug, we have all that can be obtained by giving larger doses. When, in giving mercury, the gums are touched, we do not continue the remedy. Why, then, he asked, should we continue to give quinine after its physiological effects are manifested. He desired also to allude to the extravagant waste of quinine. He feared that, because it was fashionable, physicians order it and do not sufficiently watch its effects.

DR. T. R. POOLEY read a paper on

RUPTURE OF THE CHOROID, WITH ILLUSTRATIVE CASES.

He referred to this as a cause of blindness which formerly had been overlooked. The globe may be injured by a blunt instrument, or by commotion, or violent oscillation, or by injury to the head. Without enumerating all the causes, he proceeded to give some illustrative cases in which rupture of the choroid occurred.

Case 1.—A German, who was struck in the eye with a stone, and was rendered unconscious; afterwards there was aberration of vision, metamorphopsia, blind for green and blue colors. A crescentic white streak at the edge of the optic disk, was seen on ophthalmoscopic examination. By this injury, the elements of the retinal mosaic are disarranged, varying curves are formed, and if the function of the sight is preserved, the patient will have metamorphopsia.

Case 2.—A medical student received a blow on the eye. Examination showed a streak as in the preceding case, but in a different situation. There was a metamorphopsia. The long vision was much greater than in Case 1; probably the optic nerve was injured in the orbit.

Case 3.—A student, struck in the eye with a brickbat. Some months after, he showed two streaks that were very narrow, and not united by transverse rupture, and to the nasal side another rupture was seen. Three distinct rents in the choroid existed. At first there was metamorphopsia and central scotoma. Then there was progressive loss of vision. Diagrams of these cases were shown. It is surprising, Dr. Pooley said, that so little disturbance was caused by the injury of such a vascular organ as the choroid, the amount of hemorrhage varying very greatly.

Cases 4 and *5* had nothing specially worthy of note, as they were not seen until a long time after the receipt of the injury.

Case 6 was a school-boy who was struck in the eye with a sling. He was knocked insensible; there was slight separation of the iris from its border; the dioptric media were clear. The retina was cloudy and vision indistinct; there was no pain. There was a hemorrhage, probably due to rupture of choroid. On the fifth day, the blood was sufficiently absorbed to reveal a rent in the upper portion of the choroid, A buckshot was removed from the orbit above the eye, where it had lain embedded since the injury. The rent was about four diameters of optic disk in length, and about three-fourths of it in breadth, running transversely into a second rent running vertically, which was larger—about six diameters in length. On the nasal side of the disk, the choroid appeared quite normal. For the present Dr. Pooley is unable to decide whether the retina is involved in the rent or not, but cicatricial tissue will form and determine this question.

DR. WILLIAMS, of Boston, being called upon, confirmed the views of Dr. Pooley. These cases are not very rare, he said; they are often caused by a blow on the front of the globe from a blunt instrument, baseball, snowball, bat, or stone, flattening the eye and producing the rupture. Generally examination is difficult from hemorrhage. Prognosis as to vision is doubtful; if the rent is near the macula, serious trouble will certainly be caused, but ultimately there may be tolerable vision. It is best not to promise too much in such a serious injury.

DR. POOLEY added, as regards the mechanism o the injury, that authorities have asserted that the ruptture is caused by *contre-coup* but he insisted that his last case showed that in some cases at least the injury may be direct.

The next paper, entitled

WHEN SHOULD THE TREPHINE BE USED IN FRACTURE OF THE SKULL,

was read by DR. FREDERICK HYDE, of Courtland, N. Y.

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The author considered *first*, what are the conditions demanding the operation of trephining the skull? *Second*, how soon shall the operation be performed after the receipt of the injury?

The most common causes of pressure are depressed fracture of bone, foreign substance or effusion of blood; later, there may be compression by the products of inflammation. The ordinary rule is not to trephine in simple fractures until after symptoms of compression appear. He asserted that the trephine is required in all cases where depression of bone exists, and where other means of elevation are not successful. If left alone, the case becomes complicated by inflammation of outer cranial textures: when symptoms of compression appear, it is then too late to do good by the trephine or any other means. The choice is between an early operation with a chance of success, or a late operation without relief. He did not dread access of air, nor acknowledge the great danger from converting a simple into a compound fracture. In fractures of the inner table, in punctured fractures, the trephine is generally used to remove bony spicula; why, then, should it not be used in the cases of simple fracture, when a portion of the inner table is pressing upon the brain?

DR. SQUIRE, of Elmira, then read two papers—

SOME POINTS IN RESPECT TO OVARIOTOMY,

and

ON THE REMOVAL OF STONE FROM THE URINARY BLADDER.

With regard to ovariotomy, he recommended the use of a trocar with inner and outer tube, allowing a current reverse directions. In some cases the inner tube can be dispensed with advantageously. As to time of operation, he said that the time is coming when the ovarian tumor must be detached as soon as possible, and removed early, after some preparatory treatment.

Some years ago, a young girl, seventeen years of age, was brought under his care, with symptoms of vesical calculus. Etherization and dilatation of the urethra enabled a stone to be reached and turned, and he discovered also another foreign body above it, under the pubis. Gradual dilatation enabled the stone to be removed through the urethra. Then the finger was introduced, and a depending body, like a string encrusted with salts, was found. A forceps was then introduced, but the foreign body could not be removed, and remains encysted. It was suggested that it might be a safety pin embedded in the bladder.

DR. L. E. FELTON, of Potsdam, then read a paper advocating,

THE USE OF LACTIC ACID IN DIABETES MELLITUS.

He reported the case of a young man, aged twenty-two years, who was passing three gallons of urine, containing large quantities of sugar, sp. grav. 1040. Strictly meat diet was ordered; lactic acid (one drachm and a half daily) and five pounds of flesh daily. The patient was kept under treatment for four months, and recovered entirely, the diet belng gradually extended.

Several other cases were appended in which good effects were likewise observed under the use of lactic acid and a strictly sour-milk and meat diet. The cases were all under thirty years of age, and were free from the disease, except when taking food containing sugar. Skimmed milk or sweet milk caused return of glycosuria.

DR. WEY referred to a case of a man, 200 pounds in weight, who was passing 8 gallons of saccharine urine; under the use of ergot, as recommended by Prof. Da Costa, he entirely recovered and remained well, except when errors in diet were committed.

DR. FRENCH thought that the results are more to be attributed to the diet than the treatment.

DR. JACOBI also said that regulation of the diet is the principal thing, and he thinks the treatment of diabetes is more successful than it was 30 years ago. He has many patients doing well, who have had diabetes. Transitory diabetes may occur as an evidence of general ill-nutrition. It may be connected with gout, and may alternate with attacks of gout. In transitory diabetics, symptoms have passed entirely away within ten days, simply under use of iodoform, and slight regulation of diet. He thinks transient diabetes is more common than is usually believed, and would be more frequently detected if we were in the habit of examining regularly for sugar as we are for albumen.

DR. W. GILLIS, of Fort Covington, reported a case of

PUNCTURED WOUND OF THE SKULL THROUGH THE ORBIT, BY THE TINE OF A HAY-FORK, IN A CHILD.

The tine passed to the depth of nearly four inches into the left orbit. There was facial paralysis, lasting for some months, but afterwards all symptoms disappeared, except that it was impossible to teach him to talk.

DR. HOPKINS reported a case of a woman, 70 years of age, with

RIGHT HEMIPLEGIA AND ABSOLUTE APHASIA.

Intelligence preserved. Afterwards second attack of apoplexy occurred, and the patient died. No autopsy.

DR. HYDE referred to a case under his observation in which there was extensive laceration and loss of cerebral tissue. Boy recovered every sense, physical and mental, except that he could not speak; in six months he could articulate well, and two months later he could speak perfectly. The injury was on the left side; a great part of the frontal and parietal bones were carried away in the original injury.

DR. ELY reported a case of simple aphasia without paralysis in an adult woman, which has now existed for three years.

SECOND DAY—EVENING SESSION.

The PRESIDENT, DR. HARVEY JEWETT delivered

THE ANNIVERSARY ADDRESS.

[See page 149.]

Subsequently the Society sat down to its annual banquet at the Delavan House.

THURSDAY, FEBRUARY 8TH—THIRD DAY.
FINAL SESSION.

The President in the Chair.

The concluding session was opened at 9 o'clock with prayer. The reading of the minutes was by vote dispensed with.

DR. WM. MANLIUS SMITH, on behalf of the Committee of Publication, explained that the delay in publishing the volume of *Transactions* was due to the members not returning promptly the proofs sent to them for correction.

DR. L. D. BULKLEY, of New York, read by title a paper on *The Management of some Forms of Eczema.*

DR. HOWE, of New York, offered an

AMENDMENT TO THE BY-LAWS,

which was laid over for one year, "That the Code of Ethics of the American Medical Association be substituted for the Code adopted by this Society in 1882." He said that then, when our State Society had gained an unquestionable right to representation, that our delegates should be instructed to advocate such modification of the National Code as shall be in accordance

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with a spirit of greater liberality, or even, if advisable. to urge its entire abolition.

MISCELLANEOUS BUSINESS.

DR. PORTER moved that the Commissioners of the Capitol be requested to set aside a room in the Capitol for the future meetings of the State Society. Adopted.

Drs. Porter, Bailey, and Mosher were appointed the committee.

DR. PORTER moved that the Publication Committee be authorized to republish the early volumes of the *Transactions* which are now out of print. Adopted.

The following

REPORT OF THE NOMINATING COMMITTEE

was received and adopted.

President.—Alexander Hutchins, M.D., of Brooklyn.

Vice-President.—H. G. P. Spencer, M.D., of Watertown, Jefferson County.

Secretary.—Wm. Manlius Smith, M.D., of Syracuse.

Treasurer.—Charles H. Porter, M.D., of Albany.

Censors. Southern District.—Drs. J. W. S. Gouley, Austin Flint, and F. A. Castle, all of New York. *Eastern District*—Drs. C. E. Nichols, M. H. Burton, and W. S. Cooper, all of Troy. *Middle District*—Drs. Alonzo Churchill, S. G. Wollcott, and J. K. Chamberlayne, all of Utica. *Western District*—Drs. C. C. Wyckoff, Thomas F. Rochester, and F. F. Hoyer, all of Buffalo.

Committee of Arrangements.—Drs. S. B. Ward, of Albany; J. S. Mosher, of Albany; and Wm. S. Ely, of Rochester.

Committee on Medical Ethics.—Drs. C. R. Agnew, of New York; E. M. Moore, of Rochester; and S. O. Vander Poel, of Albany.

Honorary Members.—T. J. Turner, M.D., U. S. N., William Goodell, M.D., of Philadelphia; and Lockhart Robinson, of Edinburgh.

Delegates to State Medical Societies. Massachusetts—George L. Smith, of Rondout; E. N. Brush, of Utica; P. V. S. Pruyn, of Kinderhook; George G. Hopkins, of Brooklyn. *New Hampshire*—W. M. Chamberlain, of New York. *New Jersey*—J. C. Hutchison, of Brooklyn; Robert Newman, of New York. *Ohio*—Thomas R. Pooley, of New York. *Pennsylvania*—H. C. May, of Corning; Sol Van Etten, of Port Jervis; T. D. Strong, of Westfield. *Vermont*—E. D. Lyon, of Plattsburgh; A. J. Long, of Whitehall; C. C. F. Gay, of Buffalo. *Connecticut*—Conrad Sawyer, of Au Sable Forks; E. V. Stoddard, of Rochester; George Douglass, of Oxford. *Canada*—B. F. Sherman, of Ogdensburgh; H. G. P. Spencer, of Watertown; L. E. Felton, of Potsdam; J. C. Hutchison, of Brooklyn; and R. J. Robb.

The Committee declared it inexpedient to send delegates to the American Medical Association.

A vote of thanks was tendered to the President, Dr. Jewett, who returned his grateful acknowledgements, and then declared the meeting adjourned to the first Tuesday in February, 1884.

The meeting is said to have been the largest ever held, two hundred and fifteen members and delegates having registered.

NEWS ITEMS.

BOSTON.

(From our Special Correspondent.)

RECEPTION TO DRS. HOLMES AND BIGELOW.—Following the resignation of Drs. O. W. Holmes and Henry J. Bigelow from their respective chairs in the Harvard Medical School, and their appointment as Emeritus Professors, these gentlemen were given a reception by Dr. Charles B. Porter, Assistant Professor in Surgery. Some two hundred medical men were present, among them Dr. Packard, of Philadelphia. Dr. Holmes attended on Saturday evening, Feb. 3d, a reception given in his honor at the St. Botolph Club. The report that he will soon visit England is without foundation. Readers of the *Atlantic Monthly* gladly welcome the reappearance of the Professor in an "after breakfast talk," the outcome of the "lead-poisoning" (typical wit) of which he claims to have been made a victim in early youth.

BROOKLYN.

(From our Special Correspondent.)

KINGS COUNTY MEDICAL SOCIETY.—A special meeting was held on Thursday, February 1st, to rediscuss the question of instructing delegates to vote against the "new" Code. After an animated discussion a vote was taken by ballot, 100 votes being cast, of which 41 were in favor of instructing them and 59 against it. The delegates are therefore left free to vote as they please.

THE PATHOLOGICAL SOCIETY has recently elected its officers for the coming year, as follows:

President.—J. N. Freeman.
Vice-President.—J. Merritt.
Secretary.—E. H. Bartley.
Treasurer.—A. R. Matheson.
Curator.—J. H. Hunt.
Editor.—B. F. Westbrook.

PARIS.

(From our Special Correspondent.)

THE WOUND AND DISEASE OF M. GAMBETTA.—The clinical history of the fatal illness of M. Gambetta has just been published with fulness of detail in the current number of the *Gazette Hebdomadaire*. Prof. Lannelongue with Dr. Siredey attended the case from the time of reception of the wound up to his death: the autopsy was made by Prof. Cornil, the report being approved by Profs. Charcot, Verneuil, Trélat, and Brouardel.

The details of the accident by which M. Gambetta was wounded in the arm on November 27th, are already familiar to medical readers. The fable circulated as to the reception of the wound may be positively denied; the following account, taken from *La Republique Française* for December 2d, may be relied upon as true. M. Gambetta wounded himself: he was holding in his left hand a revolver in which there still remained an unexploded cartridge, only partially inserted within the cylinder. In attempting to adjust it, his right hand being over the muzzle of the pistol, the cartridge exploded and M. Gambetta received the ball in the palm of his right hand, just inside of the root of the thumb, it passed up the forearm and emerged five centimetres below the styloid process of the ulna. The sensibility of the hand remained unimpaired, with the exception of the palmar surface of the little finger and the internal half of the ring finger, where it was completely abolished; on the dorsal surface of these regions sensibility was diminished. The following diagnosis was made: Opening of the sheath of the flexor tendons, with injury of the tendons of the deep and superficial flexors, incomplete division of the ulnar nerve; injury of the ulnar artery and superficial palmar arch; the anterior cubital muscles were penetrated from within outwards.

With the hope of obtaining immediate union without suppuration, Prof. Lannelongue directed that the hand be kept absolutely immovable in the normal degree of extension, and applied carbolized dressings (Lister) with the hope of preventing infection.

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On December 1st the wound in the hand had nearly closed, and the condition appeared very satisfactory, though the swelling between the thumb and index finger persisted, and the attending surgeon expected a rapid cure without suppuration or any complication. By December 10th both wounds had cicatrized, and although the wounded member appeared to be doing excellently, the constipation, from which M. Gambetta had suffered, became very annoying, causing, apparently, distention of the abdomen, with vague pain on pressure in the lumbar region, and gastric distress. These symptoms were, however, relieved by a copious enema, and M. Charcot, who then examined the patient, could find nothing abnormal in the abdomen. On the 15th the wounds were completely healed, and M. Gambetta was able to drive out. The abdominal distress, however, continued, and on December 17th a localized painful swelling was detected in the right iliac fossa, and the temperature became elevated, suggesting typhlitis. On the following day and night the patient had several severe chills, followed by fever, sweating, and vomiting. The symptoms of perityphlitis extending up the colon were then established, with the formation of diffused suppuration in the cellular tissue around the large intestine, but without any distinct collection of pus; therefore no surgical interference was indicated.

On December 29th there was marked erysipelas of the entire right half of the abdomen and trunk; the inguinal glands were swollen and painful. On December 31st the patient was very feeble and slightly delirious; the skin of the face reddened; the weakness and other alarming symptoms continued to increase and death occurred in the evening of December 31st.

The autopsy showed that the wound in the arm had completely united throughout its entire extent, with no trace of suppuration, and the diagnosis of the injury was confirmed. There was no solution of continuity, either old or recent, in the abdominal walls, so showing the rumor of a bullet wound of this region to have been unfounded. The brain weighed 1160 grammes (nearly 42 oz.), and was normal; it was sent to M. Duval, the President of the Société d'Anthropologie, where it will be preserved with that of Broca. The heart was normal and weighed 400 grammes; there was a small atheromatous patch at the origin of the aorta; lungs normal without adhesions. Our readers have already been made familiar with the morbid appearances in the abdominal cavity, which confirmed the ante-mortem diagnosis.

The results of this examination show that the wound of M. Gambetta appeared to have no influence on the disease which caused his death. It is otherwise, however, as regards the constipation from which M. Gambetta suffered from November 27, to December 2, which was probably dependent upon a contraction of the intestine due to old adhesions in the right hypochondrium, indicating a previous inflammation in this locality; his general health, moreover, had for more than a year been far from satisfactory, and it is possible that the inflammation caused by the perforation of the vermiform appendix might not have resulted fatally in a more healthy subject. It is probable that the diabetes and albuminuria from which M. Gambetta suffered were largely instrumental in leading to the diffuse inflammation around the colon. During the course of his last illness, however, albumen was only present in the urine after the appearance of the abdominal symptoms; while sugar was only detected once. The surgical indications never called for any operation, and even if they had been present, the general bad state of health would probably have proved an incontestable counter-indication. As one of the surgeons expressed it, a surgical operation would have been an autopsy on a living man.

THE LEGAL FRUITS OF THE NEW CODE.—During the discussion in the meeting of the State Medical Society, of New York, on the Code of Eithics, Senator Pitts introduced a bill in the New York State Senate, providing that the State and county medical societies, the State homœopathic, the State eclectic and their several county organizations, shall not adopt any rule or regulation, which shall prevent members of such societies or organizations from consulting with any duly authorized practitioner of medicine of any school in the State, and that all rules or regulations prohibiting such consultation shall be null and void. The bill, it is reported, would have been passed the day of presentation, but for the objections of Mr. F. Lansing, who objected to its immediate consideration.

NEW YORK ACADEMY OF MEDICINE.—At the meeting of the Academy of Medicine of New York, held February 1, 1883, Dr. Fordyce Barker, recently reëlected president, delivered his inaugural address. Subsequently a reception was tendered by the President and Vice-President to the Fellows to meet Mr. Seymour Haden. Dr. Barker then introduced Mr. Haden as the guest of the evening. Mr. Haden thanked the Society for the unexpected honor that their invitation conferred upon him, and explained briefly the reasons which had led him to devote his energies to art as well as to surgery. A dissecting wound, received in his youth, had prevented him from pursuing his medical work for two years. He spent that time in Italy and studied art most industriously. After regaining his health and beginning the practice of medicine, he continued to practise art, believing that the training thus given to his eye and hand was of great value to him in surgical work. He also worked in art to encourage independence in the medical profession, and to oppose the idea, prevalent in England, that a medical practitioner should be a man of only one idea.

ATTENDANCE AT THE BALTIMORE SCHOOLS.—The following statement is based on official information: The College of Physicians and Surgeons of Baltimore has 318 matriculates; the University of Maryland has 205 matriculates in the Medical Departments, 63 in the Dental; the Baltimore Medical (Paca Street) has *about* 50; the Woman's Medical College has 18; the Maryland College of Pharmacy has 87 (49 Juniors and 38 Seniors); the Baltimore College of Dental Surgery has about 40, making about 590 medical students, about 103 dental students, and 87 students of pharmacy. Total engaged in the study of medicine and its cognate branches, 780.—*Maryland Med. Journal*, January 15, 1883.

THE RIGHT OF GUESTS IN HOTELS IN CASE OF SICKNESS.—The proprietor of the Hotel Bellevue, near Seabright, N. J., who, last summer, under threat of expulsion at two o'clock in the morning, extorted $5,000 from two of his boarders who were attacked with typhoid fever, which was believed to have been contracted in the hotel through criminal negligence on the part of the proprietor, has been indicted for extortion and is now undergoing trial. The defence is attempting to prove that the patients brought the disease to the hotel with them; that Dr. Henry told Mr. Corey that they could be moved; that Mr. Corey fixed up a comfortable and airy hospital in the ball-room to accommodate them, not wishing to keep them in that part of the house where most of the people were; and that the fee of $5,000 demanded and accepted by Mr. Corey was not exorbitant.

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A SHOWER OF MANNA.—DR. PEYRE PORCHER has sent us specimens of a seed which fell in showers on November 25th, over a space of several square miles in the neighborhood of Stateburg, Sumter, Co., South Carolina. PROF. JOSEPH LEIDY, who examined the specimens, reports that they are the abortive seeds of the "Sweet Gum, or Liquid Amber, Styraciflua."

AN EPIDEMIC OF DIPHTHERIA FROM INFECTED MILK.—DR. MORELL MACKENZIE writes, in the *British Medical Journal* for January 20, 1883, in regard to a severe but limited epidemic of diphtheria now raging at Hendon, which has been traced by himself and Dr. Cameron to the infection of the milk supply. Although in some previous epidemics a strong suspicion has been entertained that milk was the vehicle of the poison, the inquiries have generally been made so long after the occurrence that it has been difficult to arrive at any certain result. In this instance, however, the facts appear to be conclusive. Fifteen persons were attacked on a single day, the disease in every case being a typical example of what French writers call *diphthérite d'emblée*. All the patients received their milk from the same vendor, and no other case occurred among the comparatively large population supplied by other dairymen. It has been discovered that the purveyor of the tainted milk washed his cans in water derived from a brook which contains a large amount of sewage matter. Indeed, up to the present time the whole of the Church End district of Hendon is drained by an open ditch into the Brent, and this ditch passes slightly above and in close proximity to the brook used by the dairyman in question. In the Tenterden Park district every household made use of the tainted milk except two. One of these families had cows of their own, and the other had thrown away the milk supplied to them the day before the outbreak began, because it was thought "it looked bad." These two were the only houses in the Tenterden Park district which altogether escaped infection.

NEPHRECTOMY.—The patient exhibited at the International Medical Congress at London, on whom MR. MORRANT BAKER performed partial nephrectomy, has since had the entire kidney removed. The patient was a lad, aged sixteen, upon whom Mr. Baker had performed nephrectomy, that is to say, had incised the pelvis of the kidney, through the loin; the operation, which gave exit to about thirty ounces of purulent fluid, was followed by a very great improvement in the patient's condition. This, however, was not maintained, and after some fluctuations in the symptoms, Mr. Morrant Baker found it necessary, on the 28th ultimo, to remove the whole kidney; this it was only possible to do piecemeal. The patient who was in a most anæmic and exhausted condition, rallied from the operation very well, and has since steadily improved; the urine became free from pus immediately after the operation, and the only symptom which at any time gave rise to any anxiety was an irregular pyrexia. On inquiry at the hospital on the 18th instant, three weeks after the operation, we learnt that the patient was then in a most satisfactory state, and that there was an excellent prospect of his eventual complete recovery.—*British Medical Journal*, January 20, 1883.

PROF. HELMHOLTZ, of Berlin, has received a patent of nobility from the Emperor of Germany.

M. TOUSSAINT, Professor in the School of Medicine at Toulouse, has just been created *Chevalier* of the Legion of Honor, in recognition of his important studies on virulent diseases.

DR. BUNSEN, the eminent German chemist, has been elected a Foreign Associate of the Paris Academy of Sciences. This dignity is one of the highest in the scientific world, and is limited to eight names. Dr. Bunsen succeeds the late Prof. Wöhler.

HEALTH IN MICHIGAN.—Reports to the State Board of Health show that, with the extreme low temperature and the considerable increase in ozone, there was a marked increase in area of prevalence of erysipelas, influenza, and pneumonia. Neuralgia, tonsillitis, diphtheria, and bronchitis have also increased in area of prevalence. There was no marked decrease in any disease reported. The correspondent at East Talvas reports the prevalence of a disease in his locality that first attacks the tonsils, then the pharynx, larynx, and trachea, and sometimes the œsophagus, with enlargement of the glands of the neck, and suppuration in the ears. The health officer of the township of Crockery, Ottawa Co., reports the prevalence of sickness beginning with chills, followed by fever lasting from one to four days, with inflammation of the tonsils and throat. He also reports "many cases of winter cholera," which comes on very suddenly and is severe.

Including reports by regular observers and by others, diphtheria was reported present during the week ending January 27th, and since, at 25 places, scarlet fever at 19 places, and measles at 9 places. Smallpox was reported at St. Joseph, Berrien Co., January 27th.

NOTES AND QUERIES.

"BRITISH PIRACY."

WE have received a letter from the Editor of *The Edinburgh Medical and Surgical Journal*, informing us that the review on Baginski's paper on the "Functions of the Semicircular Canals," taken from THE MEDICAL NEWS, and referred to in our issue of December 30th, was inserted in his Review columns by mistake, having been intended by the gentleman who forwarded it for the "Periscope on Otology." We take great pleasure in entirely exonerating the Editor of *The Edinburgh Medical Journal* from any intention of wrong-doing in this matter.

CORRIGENDUM.

IN our issue of January 27th, in the note concerning the presentation of John Hunter's portrait to the New York Academy of Medicine, the donor's name should have been printed Dr. Charles Milne, and the artist's name Sharp.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 29 TO FEBRUARY 5, 1883.

DE LOFFIE, AUGUSTUS A., *Captain and Assistant Surgeon.*—Will be relieved from duty in the Department of the Missouri, and report in person to the Commanding General, Department of the East, for assignment to duty.—*Par. 3, S. O. 26, A. G. O., Jan. 31, 1883.*

ELBREY, FREDERICK W., *Captain and Assistant Surgeon.*—The leave of absence on surgeon's certificate of disability granted July 21, 1882, is extended six months.—*Par. 5, S. O. 26, A. G. O., January 31, 1883.*

KILBOURNE, HENRY S., *Captain and Assistant Surgeon.*—The leave of absence granted December 21, 1882, Department of Dakota, is extended two months.—*Par. 3, S. O. 24, A. G. O., Jan. 29, 1883.*

PAULDING, H. O., *Captain and Assistant Surgeon.*—Granted leave of absence for one month to take effect on or about the 1st of February, proximo.—*Par. 1, S. O. 11, Department of the Platte, January 27, 1883.*

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, FEBRUARY 17, 1883. No. 7.

ORIGINAL LECTURES.

CHRONIC DISEASE OF THE ANKLE-JOINT.

A Clinical Lecture delivered at the Bellevue Hospital, New York.

BY LEWIS A. SAYRE, M.D.,

SURGEON TO THE HOSPITAL, AND PROFESSOR OF ORTHOPÆDIC SURGERY AND OF CLINICAL SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

(Specially reported for THE MEDICAL NEWS by EDWARD DEVELIN.)

GENTLEMEN: To-day I would specially call your attention to disease of the ankle-joint.

A few days ago a gentleman brought this little boy to me suffering from this disease; I requested him to bring him here to-day, in order that I may show you the means of relief by instrumental aid. On the following day another case was brought to me, the disease in this instance being in a much more advanced stage; this case I will present to you also.

Disease of the ankle is one of the most serious forms of joint disease, arising frequently from very slight causes, so slight that the disease does not develop sufficient importance to attract particular attention, until many weeks, and in some cases months, have elapsed; by this time the disease is fully developed and has caused serious constitutional disturbance; the medical man then being called in is apt to consider the disease at the joint caused by some strumous disease. This mistake has been made both at home and abroad in relation to chronic disease of the ankle-joint. They are made chronic simply because they have such a slight origin, and in course of time if allowed to run on destroy the joint and sometimes the life of the patient.

CASE I.—This child first sustained its injury by the foot slipping from the rung of a chair, the foot by some means being caught and the ankle twisted. Now observe what takes place here; the base of the tibia rests upon the astragalus and on either side are the internal and external malleoli, so that the ankle-joint is a perfect ginglymoid joint, there being no lateral motion; now between the base of the tibia and the astragalus is a thick cartilage for the purpose of receiving concussion; there is exactly the same on either side between the astragalus and malleoli, but here the cartilage is not so thick, as there is no necessity for it; around these bones passes the synovial membrane. Now when the foot is twisted to the side, the pressure may be so severe upon the thinner portion of the encrusting cartilage as to produce an extravasation of blood, and hence the nidus of this disease. There may be no swelling or heat at the joint take place at the time, and apparently there is nothing in particular that would call for attention, but in about two or three days the joint becomes a little stiff and in the course of a week or more there is a low grade of inflammation set up, an effusion is then poured out into all the little sulci of the joint, and you have a shapeless, boggy, fluctuating tumor. If then you take the foot and attempt to flex it, the child will scream with the pain caused by this action; the gastrocnemius having its attachment upon the os calcis, then draws the heel up and gives us the deformity known as talipes equinus. Now as I take the foot and make extension in the line of the deformity, you observe the expression of relief that is shown in the countenance of this child, and by continuing this extension I am enabled to make slight motion within the joint without causing pain. Now how will you form your diagnosis? You want to know whether the disease is in the joint or whether it is in the ligaments exterior to the joint. If it has been wrenched, pulled, or strained in such a manner that the ligaments have been severely stretched or partially torn, then the disease will commence in the ligaments. If, on the contrary, concussion has been the cause of the trouble, then the disease will have commenced in the interior of the joint.

Now, if the disease be in the joint, pressure of the foot upon the base of the tibia will aggravate the pain intensely; it is, however, necessary to make this pressure upon all parts; you may, perhaps, press upward and you get no pain; then press out on either side of the astragalus in order to bring the sides of this bone against the malleoli; so make your pressure on all sides to bring all parts of the joint into contact. Now if, on the contrary, you get a release from pain by pressure, and upon extension you get more pain, then the disease is in the ligaments; by this simple plan you can diagnosticate your case.

In the very early stage of the disease you will find slight swelling and slight increase of temperature of the parts, but in some cases the increase of temperature is not perceptible to the sensibility of the touch; in such cases use Seguin's surface thermometer; by this means you can detect the exact point of the disease, and secure an accurate registration of temperature.

Treatment.—In the first stage, in all sprains or injuries of a like nature, dip the foot in hot water, as hot as the patient can bear it; then every few minutes add a little more water still hotter, and so on until your patient may perhaps be able to bear it at 120° F., so hot, indeed, that he cannot bear that amount of heat with the other foot if put in the water at once; this will remove the pain almost entirely; this should be continued without intermission for six or eight hours, or until the parts can bear pressure without pain; if you will do this at the outset, you will save yourself much trouble and the patient many months of pain. After you have accomplished this, take a roller bandage and commence to bandage the foot at the distal extremity, in order to drive the blood before you, and never under any circumstances make a turn of the bandage tighter above than below, but keep equable pressure on all parts and thus avoid strangulation.

The mother, in this case, took this child to a medical gentleman, although at that time she states there were no external appearances of disease of the joint; the doctor, however, applied the plaster-of-Paris bandage, and the result is as you see; it did not arrest the disease, notwithstanding it was immovably secured in the plaster bandage, and this, although preventing motion in the joint, has not prevented the pressure of the articular surfaces together within the joint; this being the natural result of reflex muscular action, and hence the application of the plaster-of-Paris bandage is inappropriate in such cases.

When this child was brought to me the joint was much larger than it is now: pressure upon the heel or the least attempt to flex the foot produced intense agony. I advised the application of *cold*-water bandages, which have considerably reduced the swelling and inflammation. I have here a small instrument by which I shall now secure my extension and counter-

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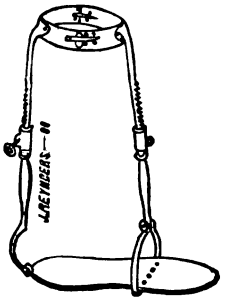
extension. This consists of a small steel foot-plate with an anterior and posterior rod attached above to a small collar which passes around the leg just below the knee; these rods being composed of two bars sliding upon each other, are regulated by a ratchet and key (see Fig.).



Now in applying this instrument I first fold a small piece of cloth, and lay it upon the foot-plate, for the purpose of absorbing all moisture, then passing this under the foot, I bring a strip of adhesive plaster from the heel of the instrument over the instep; I then secure the sole of the foot to the instrument by smaller bands of plaster passing across the foot, as you observe. I now take a strip of the plaster and pass it around the heel, bringing the two ends forward, which I pass around the sides of this small steel arch of the instrument which supports the anterior rod; then drawing the heel well forward, I reverse the ends of the plaster upon itself. Having now secured the foot in this manner, I now apply a roller bandage, securing equable pressure upon all parts of the foot. We now take long strips of adhesive plaster and pass them up the leg from just above the ankle-joint, taking care that they are not brought too close to the erosion which you observe at that point; then apply a roller bandage firmly around the leg, and having done this, attach the collar of the instrument, putting underneath at the anterior portion two small pads to protect the tibia from undue pressure; now reverse the ends of the adhesive plaster over this collar, and in turn secure them with a few turns of the roller; and now, having accomplished this, we are prepared to make extension and counter-extension. You will observe that all this time I have left the *ankle-joint exposed;* we can now make our extension, this being gradually effected, first at the heel, then at the toes, until the foot is brought at a right angle to the leg, and the requisite extension secured; at which point the child is free from pain, the articular surfaces being removed from each other. In this case I am compelled to use quite a little force, as the gastrocnemius is rigidly contracted, but I use the force gently and gradually: never use violence with an inflamed muscle. I have now completed my extension, and, as you observe, have left the ankle-joint exposed. Now were I to let it remain in that condition, I should leave the joint open to extravasation of blood, and I might do the child more harm than had I let him alone. I therefore take these strips of adhesive plaster and draw them around the joint as tightly as I can. I then apply this roller bandage and draw equally as tight, and by this pressure I expect to promote absorption of the exudation in the joint. In placing the shoe upon the foot, cut the shoe open behind and in front to admit the rods, then putting in eyelets, lace them behind the rods; in this manner the shoe is applied neatly and comfortably.

This child can now run around in the open air to improve his general condition; at the same time he should be properly nourished.

CASE II. *Chronic Disease of Ankle-joint.*—This little fellow was brought to me two days ago suffering from the same disease, but in a more aggravated form. His difficulty arose from an injury received at the ankle by falling down some eight or more steps. When I saw him the ankle was swelled to such an extent that I was afraid it would burst; I immediately ordered the application of a cold-water sponge compress, which was faithfully applied, and I am pleased to notice the improved condition of the joint. I will make extension of the joint here, and while retaining it in that position apply the sponge compress; this should be firmly and snugly secured, and then, having done that, dip the foot in water; the water being absorbed by the sponge, causes additional pressure upon the joint, and by this means favors absorption of the exudate.

When this disease has been further reduced I shall apply the extension and counter-extension by the same means as in the previous case.

CASE III. *Clubfoot, Talipes Equino-varus.*—I have here a little child suffering from club-foot, and I take this opportunity of drawing your attention to this point, that when performing the operation of tenotomy you secure a proper instrument with which to sever the tissues. I omitted to bring my own tenotome with me, and the house surgeon has just handed me this one, which, you observe, has a sharp point. I consider that any man using this incurs a great risk. I would not use this instrument under any consideration, and yet I consider that I can cut a tendon without injuring the vessels that may be in proximity to it as well as any one, but with all of my practical knowledge I would not undertake to use this tenotome. You will find this instrument in the shop of almost every surgical instrument maker, but it is not fit to use in the operation of tenotomy. (Dr. S. having sent to his office for his tenotome, it was now handed to him.)

The tenotome which I use, you will observe, is curved and round-pointed, and thus you can avoid injury to the vessels while performing the operation. The child now before us is suffering from the form of talipes known as talipes equino-varus; this condition in this case is congenital. I will now endeavor to bring the foot into the normal position by section of both the tendo Achillis and plantar fascia. You will observe that, as my assistant brings these muscles upon the stretch, I make point pressure upon each one, and instantly there is produced a reflex spasm of these muscles, thus indicating that they must be severed before any satisfactory result can be obtained. I will first divide the plantar fascia, and here you will observe that I pass the blade of the knife under the contractured tendon and fascia, with the blade lying flat against them. Having now inserted it to the desired point, I turn the edge towards the fascia, and with a short sawing motion, and with firm pressure of my thumb upon the stretched tissues, I have completely severed the plantar fascia. I then instantly return the blade to the flat position and withdraw it, placing my thumb over the wound, as I do so to prevent the entrance of air; it is then hermetically sealed with a strip of adhesive plaster. I will now sever the tendo Achillis in precisely the same manner (the tendo Achillis was then severed). Having now secured both tendons and closed the wounds, we take this small piece of board, which is the width of the foot and extends a little beyond the toes, having at its anterior end a broad strip of adhesive plaster; you also observe that there are one posterior and two lateral strips of the plaster, the board being well padded, as is my usual custom. This we now secure firmly to the foot by means of the plaster strips, and taking this roller bandage bind it firmly around the foot, passing gradually up the leg; but you will here take notice that I

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have secured a strip of adhesive plaster passing from the sole of the foot to the outer side of the leg up to the knee, in order to evert the foot and retain it in its normal position, while from the anterior portion of the foot passes this broad band of adhesive plaster up to the leg, and which secures the foot at right angles, these strips in turn being securely held by the roller bandage. In this case I shall extend my bandage up to the thigh, the child being so small.

This is the entire treatment of tenotomy in these cases of clubfoot. You have seen that I place the foot in its normal position immediately after section of the tendons, and to this I especially call your attention; other authorities, after having severed the tendons, bind the foot up in its deformed position, and after the wound has healed, commence gradual traction upon the severed tendons and endeavor to restore the foot to its normal position by this means; that is the essential difference in my mode of treatment.

After I have restored the foot to its normal position, the exudation from the severed muscles forms a connection between the two cut surfaces and which binds them firmly together, and in this manner I secure a useful and contractile muscle and without causing the slightest pain. On the other hand, were I to make traction upon the new growth, the pain would be so severe that I should have to desist, or, were I to restore the foot to its normal position, I should have so strained the new growth between the two cut surfaces as to render it perfectly useless, had I not torn it asunder in making the traction. I have followed this plan of treatment for upwards of twenty years and have secured the most successful and satisfactory results from the same. I will bring this child again before you in order that you may fully verify my method of treatment.

Note 1.—A week has now elapsed since the operation upon this child for talipes equino-varus. The mother now informs us the patient has not suffered in any manner from the operation; sleeping well at night and making no complaint during the day. Before removing the dressing, you will observe the toes of the foot retain their natural color, showing that the dressing was not applied too tightly. We will now remove the dressing and note the result of the operation (dressing was then removed). You can here notice that the foot is at right angles and the wounds completely healed. By pinching the gastrocnemius, I secure such contraction of the muscle as to raise the heel, showing that union has taken place between the severed ends of the tendo Achillis. I will now reapply the dressing as before. I wish, however, to call your attention to this point; before applying the bandage, bring the foot to a right angle so that your pressure may be adapted to the vessels of the foot at the angle at which you wish to retain it; by this means you avoid the constriction you would be liable to incur if the foot were flexed after the bandage was applied. In these small children, remember to let the bandage extend up upon the thigh. You will observe that I pass a strip of bandage from the sole of the foot to the outer part of the leg, in order to guide the foot in the direction I desire it to retain. The child can now wear this bandage for some few weeks, or until the parts have become thoroughly organized and can bear the weight of the body; then, if necessary, mechanical treatment can be applied.

Note 2.—The following week the bandage was again removed. On removing the bandage I find no sloughing here whatever, and the wound, as you observe, is entirely closed, the foot is at right angles, and there is no deformity whatever. The only difficulty now is the weakness of the muscles, but that can be remedied by the following method. This boy is now in a condition for the application of my clubfoot shoe. This shoe has in the sole a hinge capable of flexion, extension, inversion, and eversion; to a certain degree this is regulated by elastic bands, which can be so arranged as to flex or evert the foot in the desired position but not so strongly as to prevent the foot being moved in the opposite direction at the will of the patient.

Having now performed the operative part of the treatment, we require to restore vitality to the muscles and retain the foot in the normal position; now in this case, all that is required is to furnish the foot with artificial muscles to evert it and bring it to a right angle, and these are supplied in the mechanism of the shoe the boy will now wear. In the summer-time he can run around barefoot and thus aid in strengthening and restoring vitality to the muscles.

CASE IV. *Talipes Varus.*—I here present to you this young girl, eighteen years of age, suffering from talipes varus in its worst possible form; in this case it is congenital. Upon putting the tendo Achillis and plantar fascia upon the stretch, and making point pressure, you here observe I get a reflex spasm.

The tendo Achillis has been divided twice previously, but the plantar fascia has been neglected; the first operation was performed when she was three months old, and the second division was made when she was about three years of age. At both operations the foot was bandaged in its deformed position instead of bringing it into the normal position at the time the operation was performed. After the wound was healed traction was made upon the severed muscle to endeavor to bring the foot to a more natural position, but the pain was so intense that it had to be abandoned, and the result is as you now see—one of the worst forms of deformity, the foot being turned in at a complete right angle. Now at the first operation, had the plantar fascia and tendo Achillis both been severed, and the foot restored to the normal position immediately, as you saw me recently treat that little child, this young girl would have been enabled to walk with grace and ease, and could have been cured without deformity; whereas at the present time she is now compelled to walk upon the external malleolus of this left foot, and the pain of walking on this unnatural support, even for a short time, will confine her to the house for some days after, rendering the limb perfectly useless as a means of locomotion.

I find here a dislocation of the scaphoid bone; the question now arises whether by dividing the plantar fascia, I can reduce that dislocation? You observe that there is a reflex spasm upon point pressure being made upon this fascia, showing the necessity of section before anything can be done; then would arise another question as to whether, after section has been made, I can restore the foot to its normal position without making exsection of the bone itself, and taking out a V-shaped piece; in many cases that has to be done. Since Mr. Lister's day, we can perform this operation with impunity; we can take out a V-section of the metatarsal bones and secure union without the formation of a single drop of pus. Now this may seem strange, but it is a fact, and has been done since Mr. Lister's antiseptic treatment has been introduced. I look upon this antiseptic mode of treatment as one of the greatest successes in our surgery of the present day. If that could not be done, then comes the question of amputation, but I would not resort to amputation until I had tried all other means. At present, the patient is not in a condition for an operation; there is a bursa here at the external malleolus, which is very much inflamed, and were I to operate now, it might be followed by disastrous results; I shall therefore advise her to avoid using the foot for a time, keeping cold-water applications upon this bursa, and upon her return to me, I will divide both the tendo Achillis and plantar fascia, and if it is necessary to make a V-section of the bone,

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I will do so, as I think it will be vastly better to perform this operation. If amputation should after all be decided upon, I should prefer a modification of Simes' operation by Prof. Bryant, and that is, to saw through the condyles, and also the os calcis, then bring these surfaces together, having the posterior portion of the os calcis in the flap, which would make an excellent and desirable support for the limb.

ORIGINAL ARTICLES.

THE DIAGNOSIS OF CONSUMPTION BY MEANS OF THE MICROSCOPE.

BY H. GRADLE, M.D., AND H. WOLTMANN, M.D., OF CHICAGO.

(*Read before the Chicago Medical Society, Jan. 8, 1883.*)

THE subject which we wish to bring to the notice of the Society to-night is the recognition of pulmonary tuberculosis by examination of the sputum. The microscope can, of course, decide the tubercular origin of a sputum only, if the latter contains some characteristic structural element never found under other circumstances. Such a pathognomonic constituent is the *Bacillus tuberculosis*, recently described by Koch. This observer, now well recognized as the foremost investigator of bacteria, has found in all tubercles a well-characterized parasite, which he has never encountered in any other healthy or morbid tissues.

Though it is to be presumed that the profession is now quite familiar with Koch's investigations, it may be best to point out once more the salient points of his discovery, preliminary to our further remarks. The bacillus tuberculosis, as Koch describes it, is a delicate rod, one-third or half as long as a human red-blood corpuscle, characterized not only by its shape and dimensions, but much more so by its behavior to staining agents, for the ordinary mode of aniline staining fails entirely to demonstrate its presence. It is only by a more complicated procedure, devised by Koch, that it can be colored at all, and hence recognized. Since this staining method was original with Koch, and since the unstained parasite does not attract the attention, on account of its faint outlines, we have a sufficient explanation why no one has seen it with certainty prior to Koch. The claim of this observer regarding the connection of this parasite with tuberculosis, is based on the examination of 11 cases of miliary tuberculosis, 12 of caseous pneumonia, 1 of tubercular tumor of the brain, 2 of intestinal tuberculosis, 3 of scrofulous glands, and 4 cases of fungous inflammation of joints in man. Besides this, he examined numerous cases of pearl-disease in cattle, a number of instances of spontaneous tuberculosis in animals, and no less than 200 animal victims which had been inoculated with tuberculous material. Amongst this overwhelming array of material he did not fail in a single instance in finding this particular parasite, whereas he could *not* discover it in any other morbid products.

The coincidence of this micro-organism with tuberculosis would not alone prove its causal relation to that disease. This proof, however, Koch *has* furnished by producing tuberculosis in numerous animals *invariably* by inoculating them with the isolated bacillus. It was well known previously that the infection with tubercular material produces tuberculosis in animals, but Koch was the first to show that this result could be obtained *with absolute certainty* with the bacilli alone freed from all adherent animal substances. This parasite, unlike the bacteria of putrefaction, will not grow in the solutions commonly used for bacterial cultivation. It could be cultivated only on the surface of solidified blood serum, at a temperature ranging from 30° C. to 41° C. On this surface it forms brittle, scaly masses, growing very slowly, and presenting a characteristic appearance. All the characteristic properties of the parasite remained unchanged, no matter how long it was cultivated on this artificial surface, or how often it was transferred to a fresh soil. Inoculation of animals with the parasite cultivated in eight successive generations gave the same results as infection with the original tubercular matter. To any one familiar with bacterial investigations, the proofs furnished by Koch of the parasitic origin of tuberculosis cannot but appear as positive as any experimental results can be without mathematical verification.

But as yet this entire doctrine regarding the etiology of tuberculosis rests upon Koch's assertions; backed, however, by his unrivalled reputation for accuracy. His publications are too recent to have received much confirmation, though Korab in France, and Sternberg in this country, have made short communications corroborative of Koch's experiments. The mere fact, however, that Koch's bacillus is present in all tuberculous products can be readily confirmed by any one endowed with sufficient patience. Ehrlich was the first to show that this parasite is always found in tuberculous sputum, and not in the expectoration of non-tubercular patients. He based his paper on the examination of twenty-six tubercular cases by means of a method of staining more convenient than the original one of Koch. Subsequently Gibbes modified Ehrlich's method slightly, and published further results corroborative of Ehrlich. The latest publication is that of Balmer and Fraentzel in the *Berliner klinische Wochenschrift* (No. 45, 1882), who never failed to find the parasite in the sputa of 120 phthisical patients, without ever detecting it in other diseases.

But Koch has also met with opposition on the part of Dr. Formad and Dr. Schmidt. The former relates some interesting observations on the minute anatomy of tubercular patients (*Philadelphia Medical Times*, November 18, 1882). If his assertions are fully sustained by a more detailed description of his researches than he has yet given, they will form a most valuable contribution to the pathology of tuberculosis. In fact, they would furnish us with an anatomical basis for the predisposition to that disease. For it has always been known, that not *all* human individuals and not all species of animals are equally susceptible to tubercular infection. But Formad takes this opportunity to attack Koch's conclusions as to the parasitic origin of the disease without disproving a single one of Koch's

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facts. In his own statements there is no evidence that he has made any personal observations on the presence or the significance of the bacillus tuberculosis. Although he has discovered some conditions said to exist in all subjects predisposed to tuberculosis, he has not proven that these conditions alone can bring on the disease. Nor has he shown that the disease ever occurs without the presence of the parasite in question. But, he says, tuberculosis can and does occur in subjects predisposed to it, from inoculation with other than tubercular matter. True enough. But Cohnheim, who has once upheld the same view, subsequently admitted that his rabbits became tubercular apparently without *specific* infection only in localities where other tubercular animals were kept. If the tubercular parasites were not disseminated except by the experimental inoculation with the tubercular matter, the disease would soon be extinct. The point in question might be illustrated with a homely analogy which we hope, however, is not inapt. Inoculation with smallpox crusts is recognized as a sure way of reproducing that disease in all individuals susceptible to it. Yet at the time of an epidemic the inoculation with entirely different and harmless substances might be followed by smallpox, if the susceptible individual were otherwise exposed to the contagion. Similarly in the case of tubercular infection. But while the occurrence of tuberculosis in rabbits, animals so predisposed to the disease, is an accident—to say the least—after the introduction of non-tuberculous substances, it is the *invariable* consequence of an injection of Koch's bacillus. No matter, however, whether the disease is produced by the intentional introduction of the parasite, or whether the latter enters the system by an accident beyond the control of the observer, the parasite is there in every case. Koch, moreover, found that even species not at all liable to acquire spontaneous tuberculosis always succumbed to infection with the isolated parasite, simply because thus a larger number of bacilli were introduced. The growth of this microorganism is so slow that it is often eliminated from superficial wounds, without gaining a foothold in the animal body. Hence Koch preferred the more certain way of infection, viz.: by injection into the interior of the body of the animal. Formad questions Koch's motives in thus preferring injections into the peritoneal cavity and anterior chamber of the eye. But the reasons, above pointed out, he might have found in Koch's original article. On the other hand, it might be asked of Formad whether he or any one else has ever seen *local* tuberculosis (*i. e.*, of the iris) in consequence of the introduction of non-tubercular matter *into the eye*, even in as susceptible an animal as the rabbit.

Dr. Schmidt, an excellent microscopist, has attacked Koch on other grounds. He claims that the bacilli are nothing but fat-crystals. That fat-crystals can be seen in specimens treated, according to Schmidt, with a solution of caustic potash is not unlikely; in fact, we have seen similar crystals in such specimens. But they are wholly irrelevant to the point. A comparison of Schmidt's description and drawings with the specimens which we here present, will convince the Society that Schmidt has never seen the bacillus tuberculosis. It is not possible to confound crystals of such different appearance and dimensions with the bacilli stained by any of the various published methods correctly employed. It is not evident from Schmidt's article (*Chicago Med. Journal and Examiner*, Dec. 1882), whether he has followed these methods accurately or not, but, at any rate, he has not had any success with them. The query of Dr. Schmidt, why the bacillus tuberculosis stains differently from other bacilli (and the vague assertion of Dr. Formad that it does not), cannot weigh in opposition to the positive statement by the discoverer that such *is* the case, a statement fully confirmed by Ehrlich, Gibbes, Sternberg, Balmer and Fraentzel, and ourselves.

In order to demonstrate the presence of the bacillus tuberculosis in sputum, the latter should be dried on a cover-glass, in the thinnest layer possible. In order to prevent its being washed away by further manipulations, it is then to be rendered insoluble by passing it several times through a flame. One soon learns by experience how much it is to be heated. It is now ready for staining. In Koch's original article he recommends using an alkaline solution of methyl-blue for this purpose; the addition of an alkali is necessary in order to color the bacillus at all, though other aniline colors can be substituted for the methyl-blue, but with less success. On treating the specimen thus prepared with a solution of vesuvin, the brown color of the latter takes the place of the original blue in all the structural elements except the bacilli, which remain blue. This method seems to be the most difficult one to realize. We have had but indifferent success with it, especially as we could not obtain the colors used by Koch. Ehrlich substituted aniline oil for the potash in Koch's solution, dissolving this in water to the extent of its solubility. To this solution methyl-violet or magenta is added, and the specimen is then exposed for half an hour. The advantages obtained by Ehrlich are, first, a shorter time of exposure; and, secondly, greater reliability in the hands of an inexpert observer. The specimen is then decolorized by means of nitric acid. When the color has faded out of all other parts of the specimen, the bacilli still retain it, but their distinctness is improved by restaining the ground with some contrasting color in neutral solution. Ehrlich's method necessitates fresh preparation every time the solution is used; this, Gibbes has sought to avoid by using alcohol, which keeps the aniline oil in more permanent solution. But Gibbes' proportions of the various ingredients have not proven reliable in our hands. Mr. Woltmann has devised a modification of Ehrlich's method which we have found most serviceable. It amounts, practically, to a dilution of Gibbes' solution, with the addition of more aniline oil. Two grms. of magenta crystals are dissolved in a mixture of five grms. of aniline oil and twenty grms. of alcohol. Gradually, twenty grms. of distilled water are added. This solution is then filtered and kept permanently as stock. When required for use, one part of it is diluted with thirty parts of distilled water, and put

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into a watch-glass; the cover-glass, with the dried sputum, is allowed to float upon the surface of this liquid. The time of exposure must be at least three hours with our dilute solution; but when the bacilli are present in limited number, a longer action of the staining-fluid, up to twenty-four hours, is more reliable; which has also been the experience of Balmer and Fraentzel. Good staining of the bacilli is favored by a temperature of about 40° C. We have always kept our specimens in a warm chamber. The glass is then washed in a current of water, and immersed in nitric acid diluted with twice its bulk of water. It is kept there just long enough to take all visible color out of it, whereupon the acid is again washed away with water. Under this treatment the bacilli retain their distinct red tint. They attract the eye more, however, if the ground be now stained blue. We accomplish this by a two minutes' exposure to a two per cent. solution of aniline blue (commercially known as 3 B. C.), the surplus of which is washed away. After drying by gentle heat, the specimen is mounted temporarily in spirits of turpentine, or permanently in Canada balsam. In it the animal-cells and mucus are blue, while the bacilli appear distinctly red. Other micro-organisms, if present in small numbers, are not stained enough to attract attention; at any rate, they are never red. A good one-fifth inch objective suffices to see the bacilli, but a bright illumination without a diaphragm is absolutely necessary. It is much easier to recognize the bacilli when an Abbe's condenser is used; in fact, when the bacilli are few in number the examination is not reliable without it. In default of this, a short-focused objective may be attached to the substage as an imperfect substitute.

The bacilli correspond exactly to Koch's description. In some instances they are found in a state of sporification, which, observed with low powers, makes them appear granular. They are often slightly curved, and many pairs are seen in the form of a figure V.

Our own results are in full confirmation with those obtained by Koch and all other European observers. We have never seen the bacillus tuberculosis, or anything which could be mistaken for it, in the sputum of non-tuberculous patients. We have always found it in sputum of phthisical origin. We have likewise observed it in cases in which the rational symptoms pointed decidedly toward tuberculosis, while an examination of the chest gave ambiguous results; and we are convinced that time will prove the correctness of our diagnosis in these instances. We have, hence, no hesitation in claiming for the microscopic examination of sputum, *that it is the earliest and most reliable test for tuberculosis.* Like Balmer and Fraentzel, we have also found that the number of bacilli in the sputum gives some indication of the degree of intensity of the disease. They are, however, not evenly distributed throughout the sputum; hence it is best to examine several slides made from different portions in all questionable cases, and when they cannot be found the first time, the examination should be repeated on a subsequent day. It is, of course, essential that the sputum should come from the lung, and not from the upper air-passages.

The inevitable conclusions from our own work, as well as that of other observers, are that

Every case of pulmonary tuberculosis can be diagnosticated by means of microscopic examination of the sputum, even before the clinical examination reveals it with certainty; and that, *When repeated proper examination of the sputum fails to show the bacillus tuberculosis, pulmonary tuberculosis does not exist.*

To speak with certainty in any case requires, of course, that the observer should have familiarized himself with the methods and possess the proper appliances. Our success has been so invariable, that we feel confident enough to challenge the Society to produce a case of tuberculosis in which we cannot demonstrate the bacilli. Moreover, we are prepared to examine a reasonable number of sputa furnished to us without clinical histories, as the test of our assertions, and to submit the results of this examination to the Society at the next meeting.

A CASE OF DEATH FROM CHLOROFORM.

BY J. EDWIN MICHAEL, M.D.,

PROFESSOR OF ANATOMY AND CLINICAL SURGERY IN THE UNIVERSITY OF MARYLAND, BALTIMORE.

SAMUEL Y., colored, cook, aged about 50, came under my treatment a few weeks ago for stricture of the urethra. He was admitted to the Maryland University Hospital a short time before the beginning of my time of service (Jan. 1), under the care of my colleague, Prof. L. McLane Tiffany, with the following history. About seven years ago he suffered from difficulty in passing water, due to a previous gonorrhœa, and came to the University Dispensary for relief, where he was treated by Prof. Christopher Johnston. The operation then performed upon him, according to his own description, was that of rapid dilation by the instrument of Holt. This treatment was eminently successful, but failing to follow Prof. J's. directions to come from time to time and have an instrument passed, his stricture returned, and about four years ago he applied to the late Prof. Thomas R. Brown, of the College of Physicians and Surgeons, of this city, and was again successfully treated, this time by the internal cutting operation of Otis. Again neglecting to follow instructions, his trouble gradually returned and his condition changed from bad to worse, until his admission to hospital. Even then he was not admitted on account of his urinary trouble, but for an injury to the foot which he had sustained. When attention was called to the condition of his urethra, it was found that he could only pass his water by drops, and that with great straining. He was much emaciated and suffered frequently from chills and rigors. An examination of his urine revealed the presence of tube-casts and albumen. His appetite was poor, his sleep restless and unsatisfactory, and his general condition exceedingly bad, though no other organic disease was discovered. A full-sized instrument was checked at the bulbo-

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membranous portion of the urethra, and external examination showed a large hard lump at a corresponding point; smaller instruments were tried until a long and patient trial of a number of the finest filiform bougies failed to reveal a passage. As the bladder was not much distended, and the patient could still relieve himself in some degree, aspiration was not deemed necessary. Appropriate treatment was ordered, and instructions given to the house physician to aspirate later if necessary. After several days of rest, during which there was sensible improvement in the patient's general condition, another search for the passage to the bladder was undertaken. After a long and patient trial I was again defeated, and pronounced the stricture impassable, at least so far as I was concerned. I therefore, having explained the serious state of affairs to the patient, and placed the whole matter before him as clearly as possible, advised external perineal urethrotomy without a guide. He consented after deliberation, and I determined to operate on Friday, January 12, at my clinic. Chloroform was the anæsthetic selected. Twenty minutes before the beginning of the inhalation one ounce of whiskey was administered, according to a practice which I always follow in using chloroform with adults. Another ounce was given at the beginning of the inhalation. The anæsthetic was administered by the two resident physicians, Drs. West and Mitchell, both of whom have had ample experience, and in whose skill and judgment I have every confidence. I requested them to be exceptionally careful in this case, on account of the desperate condition of the patient, and I am convinced that my injunction was carried out to the letter. The chloroform used was Squibb's; the apparatus, a towel cone open at both ends. The inhalation proceeded in the ante-room, while I explained the nature of the case and the proposed operation to the class. I had made but few remarks, however, when I was hurriedly called from the clinical theatre by Dr. West, and informed that the pulse had suddenly ceased. By the time I reached the ante-room, the lower extremities were well elevated, the head hung over the end of the operating table; hypodermic syringes filled with whiskey ready to be applied, and the battery in the corner of the room clicking away ready for use. Artificial respiration was being practised with success, as far as causing the ingress and egress of air to and from the lungs was concerned. My opinion, when I saw the state of the case, coincided with that expressed by Dr. W., that it was a death from heart paralysis, and that all efforts at resuscitation would be vain. The means at hand were however faithfully used for fifty minutes after the abrupt cessation of the pulse, but without the slightest response. Respiration could be produced both with the hand on the sternum and the battery, but no heart sounds could be heard nor the slightest pulsation elicited. Hypodermic injections were used, but only sparingly, since they evidently could do no good without a circulation. The death occurred early in the inhalation, as is the rule in cases of this kind. The patient was by no means fully under the influence of the anæsthetic, but still in the stage of excitement. The pulse ceased as he was making an effort to rise from the table. About three drachms (estimated) of chloroform had been poured in the cone.

Autopsy, five hours after death, made by Dr. W. T. Councilman. The abdominal cavity was opened and the digestive tract, which presented nothing worthy of note, first examined. Trachea contained a little frothy mucus. Lungs contained some insignificant patches of old emphysema. They were congested in a high degree, and bled (when incised after examination of the heart) very freely. Heart about normal in external appearance; right side distended, as also venæ cavæ and pulmonary artery, with fluid blood. Left ventricle very slightly (?) hypertrophied, containing, as also auricle, small quantity of fluid blood. Heart tissue (macroscopically) perfectly sound. All orifices and valves perfectly normal. Liver highly congested, and bleeding freely on incision. Right kidney somewhat contracted, pelvis dilated and thickened to a considerable degree, as also right ureter throughout its whole extent. Left kidney firmer than normal to the feel, but not otherwise changed. Capsules of both kidneys slightly adherent. Bladder contained something over a pint of urine; walls thickened considerably; slight tendency to sacculation. Follicular cystitis, especially in the trigone. Moderate prostatic hypertrophy. Urethra, anterior portion of prostatic and two-thirds of membanous portion largely dilated. Stricture occupying about three-quarters of an inch at bulbo-membranous portion; pendulous portion normal. The stricture was a somewhat notable one, as was to be expected after the use of both Holt's and Otis's instruments, and subsequent recontraction. The urethra, above and below, came to irregular points, somewhat overlapping each other, and urine seemed to pass through a sort of cribriform septum between them. Dr. Councilman was unable to find a regular passage through it. Brain and cord were not examined, as it was deemed unnecessary.

Remarks.—Although I may say I have been living in an atmosphere flavored with chloroform for the past ten years, this is the first (and I need not say I sincerely hope it will be the last) death I have seen occasioned by the drug. That the anæsthetic killed the patient, I think is equally apparent from the clinical events and the post-mortem details given above, and that the fatal end was reached by way of paralysis of the heart I consider beyond doubt. That this kind of death will occasionally occur from the use of chloroform, the most enthusiastic admirer of the drug cannot deny. The chloroform used was that generally acknowledged to be the purest in the market; previous alcoholic stimulation was resorted to with special reference to heart failure; those who administered the drug were careful, experienced, and competent; the apparatus used was the simplest and safest, and the means most in vogue for resuscitation were at hand, and were used promptly and skilfully when the emergency came. Moreover, I have used the same chloroform, at the hands of the same assistants, both before and since this unfortunate case, with most satisfactory effect. The occurrence of the case in my practice has only illus-

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trated what I knew had occurred before, and could occur to any one who uses chloroform for the induction of anæsthesia. Whether there is less danger in the use of sulphuric ether, ethyl bromide, or other anæsthetics, I shall not, in this place, attempt to discuss. I consider it my duty, however, to report my case as a contribution to the mass of facts bearing on the question, and hope, in common with other surgeons, that we may ultimately, by the collection and comparison of *all* the facts, be enabled to definitely decide the question as to what is the safest and the best anæsthetic.

HOSPITAL NOTES.

VIENNA GENERAL HOSPITAL.

(Service of PROF. CARL BRAUN.)

A HIGH FORCEPS OPERATION.

(Specially reported for THE MEDICAL NEWS.)

A CASE of the high operation which Prof. Carl Braun performed upon Wednesday, November 8, before the class will serve to convey the teachings of the Vienna School upon a number of important subjects in relation to the use of forceps.

The patient, a native of Austria, unmarried, thirty-two years old, in her fifth pregnancy at full term, felt labor pains towards the evening of November 7, and entered the lying-in ward of the First Obstetrical Clinic at 2.30 A.M. November 8. Abdominal palpation revealed pregnancy at full term, a large child, head presentation, first position. Heart tones were loud and regular. By combined external and vaginal examination a contracted pelvis was demonstrated. The measurements were:

Distance between the anterior and superior spine, ...	21½ cm.
Distance between the iliac crests, . .	25½ "
" " trochanters, .	30½ "
External conjugate diameter, . .	18 "
True " " . .	8½ "
Abdominal circumference, . . .	82 "

The os became fully dilated at 5 o'clock A.M., and the rupture of the bag of waters occurred some moments later. The head engaged in the superior strait and advanced very slowly until a segment of one-third its volume was within the pelvic cavity. The head now became firmly fixed, with the sagittal suture in the transverse diameter, and a considerable caput succedaneum began to form. The corpus uteri continued to contract powerfully, at regular intervals, without effecting in the slightest degree any change in the position of the head, while the collum uteri became distended, and finally reached to the umbilicus. Later the condition of tetanus uteri was observed, and the corpus uteri could be felt as a firm hard tumor above the umbilicus, very sharply differentiated from the distended, relaxed collum uteri, situated below. At 11.30 o'clock A.M., the woman received a hypodermic injection of morphia, and at 12.30 o'clock P.M., she was taken into the lecture-room for the application of the forceps.

Prof. Braun, after careful disinfection of his hands by liberal use of a 3 per cent. solution of carbolic acid, 10 per cent. solution of potassium permanganate, a solution of hydrochloric acid of similar strength, green soap and a brush, examined the woman, and confirmed the diagnosis previously made in the lying-in ward. He said the child would weigh more than 3500 grammes, and would have a greater length than 50 cm. After catheterization, the vagina and external genitals of the patient were copiously irrigated with a 3 per cent. solution of carbolic acid, immediately before the application of the forceps.

While Prof. Braun is in no sense of the word a strict disciple of Lister, he is no disbeliever, and always gives his patient the benefit of a doubt, with the exception of the spray. In passing, it may be mentioned that careful irrigation with disinfectant fluids was employed under his direction long before Esmarch called public attention to the subject.

For the operation, Prof. Braun selected his own instrument. This is the long forceps of Sir James Simpson, with the fenestræ closed by a thin metallic plate (Hohl's modification), the whole instrument, including handles, being covered by a thin layer of hard rubber. The weight of the instrument is 600 grammes.

The advantages claimed for the instrument are:

1. The impermeable, smooth surface.
2. The easy, antiseptic cleansing, because septic material finds no lodgement in any groove.
3. The durability, because hard rubber resists rust, chloroform, chloride of iron, carbolic alcohol, which is not the case with the nickel or gold-plated instrument.
4. The instrument requires no heating apparatus.
5. The avoidance of all sharp, metallic angles and points, which injure the skin of the head and face.
6. The obliteration of the fenestræ prevents the feathering of the blade.

Prof. Braun speaks in unmitigated terms of disapprobation against Tarnier's forceps, Alexander Simpson's instrument, and Felsenreich's modification of the last-named forceps. Felsenreich's forceps, which have been used at the clinic for some months past, present few points of difference from Alexander Simpson's original instrument. For the past six months there has been much discussion in the Vienna Obstetrical Societies as to the value of the last-named three instruments. For this reason, Prof. Braun has allowed his assistants to use them at the clinic. The results, upon the whole, have not been favorable. Mother and child have, in a number of cases, sustained serious injury. Prof. Braun himself never uses the instruments, and pronounces the principle to be radically false, and the instruments themselves a fashionable folly ("Moderner Schwindel").

The patient having been slightly chloroformed, was placed upon her back, with her lower extremities elevated, and the blades of the forceps were adapted to the long diameter of the fœtal head, the maternal tissue being guarded by the introduction of four fingers above the pelvic brim. Seated quietly in his chair, the operator applied traction in the axis of the pelvic brim, and after a few, though sometimes powerful, efforts, brought the head down into the middle of the pelvic canal, where rotation was effected by readjustment of the blades, and the birth of the child rapidly followed.

Prof. Braun never used the forceps as a *lever* or *compressor*.

The child proved to be a male, weighing 3900 grm. with a length of 52 centimetres. The child was profoundly asphyxiated, but when the cerebral congestion was relieved by its elevation above the level of the placenta, the breathing became normal, and the facial hyperæmia disappeared. The placenta was at once expelled, the corpus uteri being thrust downwards towards the symphysis in such a manner as to cause complete descent of the collum uteri into the cervical canal. The collum uteri folded upon itself as if telescoped.

When the cord ceased to pulsate, 30 minutes after its delivery, it was severed, but not ligated. This departure from custom was made, in order to show that liga-

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ture of the cord, after cessation of pulsation, is not a scientific necessity.

Prof. Braun is not an iconoclast, however, and in the lying-in ward all umbilical ends are ligated in two places. After careful irrigation of the vagina with a 3 per cent. solution of carbolic acid, an iodoform tent, weighing 5 grammes, was introduced into the uterus.

At the time of writing, both mother and child are thriving.

MEDICAL PROGRESS.

TUBERCULOSIS OF THE FALLOPIAN TUBES.—DR. JUSTUS SCHRAMM, of Dresden, contributes to a recent number of the *Archiv für Gynäkologie* a short paper on the above subject. Out of 3386 autopsies upon women, he found this condition present 34 times, or about 1 per cent. There were of these, 806 who died from pulmonary phthisis or from tuberculosis of other organs, so that the proportion in which the tubes were affected in them was 4.2 per cent. In the 34 cases of tuberculosis of the tubes, the uterus was affected 7 times, there was tubercular disease of the peritoneum 21 times, and more or less advanced lung disease in 29. Both tubes were diseased in 27 of the cases, the left alone in 5, the right alone in 2. The large majority of Dr. Schramm's cases occurred between the ages of twenty and forty. In only one of the 34 was there reason to think that the disease of the tubes was primary; but in this case the bowel and peritoneum were also affected, the greater amount of disease in the tubes being the only reason for thinking them the part first affected. It is remarkable that, while tuberculosis of the urinary apparatus is not uncommon in man, it seems to be very rare in women. Dr. Schramm says that only one case has been seen in the Dresden Hospital during the last twenty-two years. Perfectly healthy Fallopian tubes are seldom found, according to our author: and he quotes Hennig, who thinks that catarrh of the tubes is present in about a quarter of all cases (whether of dead bodies or of living women is not stated). The latter author also thinks that the tubes are the subject of catarrh oftener than any other part of the genital mucous membrane. Dr. Schramm finds that tuberculosis of the tubes originates in catarrh, and that it commonly begins in the ampulla. The walls become thickened, the tube filled with pus, and then caseation takes place, followed by ulceration of the mucous membrane. Miliary tubercles are not common; when present they are seen towards the abdominal end around the caseous knots. Histologically their structure is the same as that of tubercle in other parts. For a detailed account of this, as well as of the changes in the bloodvessels (which are also analogous to those elsewhere seen), we must refer our readers to Dr. Schramm's paper.—*Medical Times and Gazette*, January 20, 1883.

SUCCESSFUL EXTIRPATION OF THE KIDNEY.—DR. REINHOLD BRUNTZEL reports a case in which the left kidney was removed from a woman aged 33, on account of a fibroid tumor, weighing 37¼ pounds, of the renal capsule. The abdomen was opened by an incision extending from the xiphoid process to the symphysis pubis. Recovery was complete in four weeks.—*Berliner klin. Woch.*, Dec. 4, 1882.

RETRO-PERITONEAL FIBROMA.—In a recent number of the *Zeit. für Geburtshülfe und Gynäkol.*, a case is recorded by DR. MORICKE, which he thinks, with reason, is unique, and we therefore briefly condense his account of it. The patient was twenty-four years old, had had two children, and was in fair general health. A firm, non-fluctuating tumor, as big as a man's head, rounded, and apparently loosely connected with the right side of the pelvis, was felt in the abdomen. This was diagnosed (erroneously, as it turned out) to be an ovarian tumor, and therefore an operation was undertaken. After the peritoneal cavity had been opened, the tumor was found to lie behind the mesentery. It was divided into two unequal parts by a furrow running from the upper and left part of it downwards and to the right. In this furrow lay a part of the ileum, the mesentery of which was spread over the tumor. The bowel was dissected off the new growth with the mesentery, which was cut through on each side, a little distance from the intestine. The dissection was one of great difficulty, the connection between tumor and ileum being very intimate. After the bowel had been freed, the flaps of mesentery raised with it were united over the part that had been attached to the tumor. At a portion of it the mesentery dissected up was not enough to surround the bowel without risk of stricture; and therefore, here, about half of the circumference of the intestine was left without any peritoneal coat. The tumor was then removed. It was fibrous in structure, and weighed about two pounds and a quarter. An ovary, which contained a small dermoid cyst, was also taken away. Slight pyrexia followed the operation, and lasted four weeks. The patient left her bed thirty-three days, and the hospital forty-two days, after the operation. Dr. Möricke remarks that the case is probably unique in the fact of a foot of intestine being deprived of its mesentery and left in the abdomen, and the patient nevertheless recovering.—*Medical Times and Gazette*, January 13, 1883.

ARTIFICIAL HUMAN MILK.—The method of preparation of artificial human milk as recommended and used by PROF. FRANKLAND is as follows: Let one-third of a pint of new cow's milk stand twelve hours, then remove the cream, and add to it two-thirds of a pint of new milk as fresh from the cow as possible. To that one-third of a pint of blue (or skim) milk left after taking away the cream, add a piece of rennet (about one square inch in size) which, after it has served its purpose, can be taken out and used daily for a month or two, and allow the vessel holding the skim milk to be placed in warm water and there remain from five to fifteen minutes, until curdling is effected. Break up the curd repeatedly and carefully separate the *whole* of the whey, which should then be rapidly heated to boiling in a small tin pan, placed over a spirit or gas-lamp; during this heating a *further* quantity of casein (technically termed "fleetings") separates, and so straining after this, through fine muslin, is then required. Now dissolve one hundred and ten grains of powdered milk sugar in *hot whey*, and mix it with two-thirds of a pint of new milk as before prepared with extra cream. This gives us one pint of artificial human milk, which should be used *within twelve hours* after its preparation; all vessels and apparatus concerned in the manufacture being kept scrupulously clean.—*Physician and Surgeon*, January, 1883.

THE OPHTHALMIC LESIONS IN GENERAL PARALYSIS.—M. CH. DUTUGUE having examined the eyes of a large number of general paralytics, is led to draw the following conclusions:

In the first stage of general paralysis there is always irregularity of the pupils, papillary congestion, and varicose dilatation of the retinal arteries and veins.

In the second stage, the disorders are more advanced, with the addition of marked papillary and peripapillary œdema. The disk is often obscured, or even masked, by œdematous swelling, whose thickness is directly proportionate to the duration of the disease.

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In the last stage, which terminates in death, the papilla is small, flat, and gray in color; the vessels which normally give it a pink tint having disappeared from the optic atrophy. To this atrophy, atrophy of the choroid, retinal hemorrhages, and granulations of the retina and choroid, are also to be added.—*L'Encéphale*, January, 1883.

THE EXCRETION OF LIME SALTS IN PHTHISIS.—This subject, which possesses clinical as well as pathological interest, inasmuch as it bears upon treatment, has once more been investigated by PROF. SENATOR, of Berlin (*Centralblatt f. die med. Wiss.*, 1883, page 11). It is no new observation that the amount of lime in the urine is increased in phthisis, but Schetelig had recently questioned the correctness of the conclusion. Both relatively and absolutely, however, the calcareous salts appear to increase in the urine during tuberculosis. There are very wide limits within which the amount of this excretion varies in health, viz., from .081 to .77 grammes in twenty-four hours. Still, this maximum, even, is exceeded in phthisis; and the continuous observation of an individual over a lengthened period also demonstrates a positive increase. The source of the lime salts cannot be found in the food, neither can it be referred to the wasting of the lungs, for these organs actually show an increase, and not a diminution, of their calcareous constituents when tuberculous. Senator suggests that the bones are to be credited with the excessive discharge, inasmuch as they manifestly waste in phthisis; the yellow marrow becoming red, and the lime salts being very probably set free in the process.—*Medical Times and Gazette*, January 20, 1883.

VERTIGO IN TABES.—DRS. MARIE and WALTON believe that vertigo, closely resembling that of Ménière's disease, is of more frequent occurrence in tabes than is generally believed. The occurrence of vertigo in such cases usually coincides with the appearance of the early symptoms of tabes. The vertigo cannot be attributed to general atrophy of the auditory nerve, as its auditive function is preserved unimpaired, but may probably be attributed to lesion of certain fibres of the auditory nerve distributed to the semicircular canals, the so-called nerves of space.—*Rev. de Médecine*, Jan. 10, 1883.

THE BACILLUS TUBERCULOSIS.—We learn from the *Wiener Med. Woch.*, No. 51, that Prof. Balogh, speaking recently before the Royal Medical Society of Buda-Pesth, stated that he had detected, in the marshes surrounding Buda-Pesth, a bacterium which behaves very like the bacillus of tubercle, but which he appears not to regard as such. He contends that neither the form nor the staining with dyes is sufficient to distinguish the varieties of Schizomycetes (fission-fungi). Experiments were conducted in which animals were allowed to inhale the fission-fungi of the marsh, with the result that, on post-mortem examination, little nodular growths were found in the lungs, heart, and kidneys; in the nodules the fungi were found in various stages of development, and the rod shapes stained with methylin-blue and vesuvin, just as do the bacilli of tubercle. Inoculation with bacteria from scarlatinal urine, and from ordinary sputa of bronchitis, gave rise to similar nodular growths which were not considered to be "tubercle." Prof. Koryanyi mentioned a case of a phthisical patient suffering from syphilitic lupus, which had improved under the use of iodide of potassium. In the sputa of this case, which was regarded as one of pulmonary syphilis, the bacillus of Koch was detected; hence Koryanyi holds that the presence of this bacillus is not a sure sign of "tuberculosis." We know of no more difficult questions than those raised by such observations. They seem always capable of more than one interpretation. It is possible that the bacillus found in the fens is identical with that supposed to be the cause of tuberculosis. Again, the notion that morphological appearances are not enough to split the group of the fission-fungi into varieties, has been upheld by eminent botanists. The remarks above reported raise again also the difficult question as to what is to be called tubercle. We may repeat here what we have elsewhere said, that various causes may give rise to products which to our senses are similar and indistinguishable.—*Medical Times and Gazette*, January 6, 1883.

NEW OPERATION FOR TOTAL EXTIRPATION OF THE TONGUE.—DR. GIOVANNI FIORANI has employed with success the following procedure in extirpating the tongue. The patient being seated on a chair in the upright position, with the head well extended and supported on the breast of an assistant, a vertical incision, one centimetre in length, and simply passing through the skin and cellular tissue, is made in the median line of the sub-hyoid region. The operator then introduces the index-finger of the left hand into the patient's mouth and passes it down into the left lateral furrow as near to the hyoid bone as possible. A trocar is then passed into the pharynx through the incision in the skin, and the loop of a doubled wire then passed through the canula: a thread is then passed through this loop and drawn out through the canula so that its ends remain in the mouth and the loop lies outside of the wound in the neck.

A similar procedure is then practised on the right side of the neck, and the free ends of the thread passing through the left side are then drawn out on the right side.

The thread is then replaced by a rubber cord 80 centimetres long and 4 millimetres thick, which is placed in position by passing it through the loop of the thread, and then drawing the ends of the thread out through the wound.

One loop of the double elastic ligature is then passed forward over the tip of the tongue, so that it lies under the tongue on the floor of the mouth and the ends are then tightened and knotted in front of the neck.

There is very slight pain produced during the operation, and the pain produced on tightening the ligatures only lasts a few minutes. Inflammatory reaction may be subdued with ice. On the third day the tongue becomes gangrenous; infection may be prevented by packing the mouth with iodoform gauze. The tongue, which should be secured by a thread passed through its tip, separates on the tenth or eleventh day.—*Rev. de Chirurgie*, January 10, 1883.

PASTEUR'S RESEARCHES.—A letter was read at a recent meeting of the Académie des Sciences from M. Pasteur, giving an account of his progress in some researches in which he is at present engaged in the district of Vaucluse. He has gone there to investigate a disease of pigs, which, in one valley of the Rhone, has recently been fatal to 20,000. The disease is called "le rouge des porcs;" and M. Pasteur announces that he has discovered its cause to be a very minute organism, which in point of size resembles that of chicken cholera. It differs, however, in its physiological properties, since it has no action on fowls, but it is fatal to rabbits and pigs, especially to white pigs. M. Pasteur has convinced himself, by experiments, that one attack affords protection against another, and he has succeeded in inoculating pigs with organisms which have been weakened by culture, and in thus rendering these animals insusceptible.—*Lancet*, December 16, 1882.

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SATURDAY, FEBRUARY 17, 1883.

THE JOHNS HOPKINS HOSPITAL.

WE have had for some time upon our table a number of cuttings from Baltimore newspapers of last year, relating to the proposed opening of the Johns Hopkins Hospital, and the moving of the University of the same name from its present quarters near the centre of the city to a point in the suburbs. It would seem that there has been some difference of opinion among the trustees as to the time when the Hospital should be opened for the reception of patients, and that two of the trustees, Mr. John W. Garrett and Dr. Alan P. Smith, presented a report on the subject, in which it was advised that the Hospital should be opened in September, 1883, with ward accommodation for fifty-six patients, the dispensary, amphitheatre, and apothecaries' building; the reasons given being that the city is in want of gratuitous hospital accommodation, and that the University desires to organize its medical department as soon as possible to meet the demands which are made upon it, and that it cannot do this until the hospital is ready to furnish opportunities for clinical instruction. On the other hand, the majority of the trustees thought it better to wait until accommodation for at least one hundred and twenty-five patients was provided, that there was no urgent demand for hospital accommodation for the sick poor of Baltimore, and that the University would be rather glad than otherwise if the organization of its medical department was postponed for two or three years, as it has plenty of work on hand. The result was a decision that the Hospital should be opened if possible in the fall of 1885, and as the majority of the trustees of the Hospital are also trustees in the University, we presume that this is equivalent to a decision that the opening of the medical department of the University will be postponed to the same time.

Having recently had occasion to visit Baltimore, we made use of the opportunity to visit the hospital grounds and see what progress had been made. The hospital is located in East Baltimore near the top of the side of a hill which faces the city to the west, of which it commands an excellent view. The following buildings have been placed under roof, viz., the administration building, two pay wards, one octagon ward, three common wards, one isolating ward, kitchen, nurses' home, laundry, autopsy building, dispensary, and amphitheatre. The connecting corridors have not been constructed, nor the bath house, but with these exceptions the external work on all the buildings which it is proposed to erect at the present time seems to be finished. Ultimately, another octagon ward, three common wards, and one isolating ward are to be built on the south side of the lot, corresponding to those already erected on the north.

The buildings are of brick, with trimmings of a peculiar dark-blue fine-grained stone which has an excellent effect, and the materials and workmanship are of the best quality It is not our purpose to discuss the merits of the plan adopted, or to describe in detail the several buildings, since, even if we had all the data, it would be impossible to give an idea of the arrangements without the use of plates, which cannot be given here, and we can only notice briefly those features of the hospital which are more especially intended for educational and scientific work, and through which it is brought into immediate relations with the University. The most peculiar of these, and the one which seems most likely to have a strong influence on the plan of medical education to be adopted, is the provision in the administration building for lodging some thirty or forty students, the design being that the graduating class shall reside in the hospital during the last year of the course, which is to be devoted mainly to clinical work. The rooms for this purpose occupy the whole third story of the administration building, are large, airy, light, and well heated and ventilated, and are amply provided with bath-rooms, etc. On the lower floor is a library and reading-room for the students, and in an annex a handsome dining-room looking out at the end upon the central garden.

The building designated in the above list as the autopsy building, is situated on the north-east corner of the lot, which is its highest point, and diagonally across the street from grounds belonging to the University, and upon which it is proposed to erect the buildings for the medical school. This autopsy

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building is really a pathological institute, or laboratory, containing a room for the preservation of the dead, a room for meeting of friends, etc.; a small amphitheatre, the arrangements for the ventilation of which are very good; two large rooms facing the north for microscope work and pathological investigations; rooms for photo-micrographic work, etc. This building is entirely detached from all others, and its arrangement appears to be very convenient and satisfactory.

The dispensary and amphitheatre are two large buildings located in the middle of the north side of the grounds in convenient proximity to the proposed medical school. Each building contains a large central room about fifty feet square, which, in the dispensary, is the reception and waiting-room for patients, and is surrounded with smaller rooms intended for the examination of patients by the clinical teachers.

In the amphitheatre the large room has seats for about two hundred and fifty students, and the smaller rooms adjoining are for waiting-rooms, the reception of accident cases, etc.

The two buildings are connected by a short covered way which allows of the free passage of air between them. The amphitheatre is lighted by a skylight, and by north windows behind the seats. A small dark-room is connected with it for the use of a photographer, so that a photograph can be readily taken of any case of interest. A corridor is to connect the amphitheatre with the basement of one of the wards.

A large amount of work remains to be done on this hospital, and as building operations must be restricted to the available income, which is about $130,000 per annum, it would require between four and five years to complete all the buildings and their connections, with the necessary heating apparatus and machinery. There can be little doubt that the trustees have acted wisely in deciding not to open the hospital before 1885. Even then they will not have had sufficient funds to finish all the buildings; and since the greater part of the income will be required to meet running expenses as soon as the hospital is opened, their building operations will drag on for ten years to come.

No doubt there is a demand for the medical department of the University, and the sooner it can be established the better; but this is to be taken with the proviso that it is organized on a proper basis. It is to the interest of the University that the hospital shall be as complete as possible, and be able to furnish the most ample clinical facilities.

So far as we can learn, the University authorities have not yet given the subject of their medical department much consideration. At all events, they have decided nothing; but the time is not far off when they should be giving the matter very careful attention.

We shall return to this subject hereafter. Meanwhile, we can say with confidence that if the medical school is as carefully planned, and as thoroughly worked out as the hospital has thus far been, it will be a great success.

ANOTHER DEATH FROM CHLOROFORM.

THE frequency of these announcements, surely, demands that the organs of professional opinion utter some authoritative mandate as to the use of a safer anæsthetic. If ether is, as we have abundant reason to believe, far safer than chloroform, ought there be longer delayed some authoritative expression founded on the general verdict of the medical profession, or a legislative enactment, to prevent the use of the more dangerous agent, unless the conditions requiring it are exceptional?

The last example affords capital illustration of several points which have, from time to time, been set forth in these columns. The cardiac failure induced by the first impression of nearly pure chloroform vapor; the administration of the anæsthetic by a method which ensures the exclusion of air from the first portion of vapor inhaled; and the omission of an expedient which we have reason to believe, if rightly timed, prevents many of the accidents occurring. It may be well to briefly recapitulate these several points, taking the example now before our readers in illustration.

Dr. Michael arranged all the details connected with the administration of the anæsthetic very carefully and prudently, in accordance with the general practice. There are several points, however, sanctioned by usage, which appear to us to demand criticism. The administration of a large dose of whiskey before beginning the inhalation, it seems to us, is not based on a proper knowledge of the action of this agent. *Large doses* of alcohol depress the heart's action, and lower the temperature. The subcutaneous injection of morphia, as originally proposed by Bernard, and afterwards by Nussbaum, and in this country advocated by the late Dr. Wm. Warren Greene, and by Dr. J. C. Reeve, of Dayton, is an expedient of the utmost value, both to facilitate the inhalation, and to prevent cardiac failure. Morphia and atropia are now used together, with distinct advantage. If administered before beginning the inhalation, the cardiac failure which so often occurs when the first impression is made on the motor ganglia will be largely prevented.

In this fatal case, we hear again that a towel cone was the inhaler used. A quantity of chloroform is poured into the cone, the application is made over the mouth and nose, and sufficient air is supposed

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to enter from the open top of the cone. Now, as the vapor density of chloroform is so much greater than atmospheric air, it is obvious, having regard to the law of diffusion of gases, that for the first few minutes of the inhalation the patient receives almost pure chloroform vapor. In a great majority of cases, as Dr. Michael well observes, it is the first portion of chloroform inhaled that paralyzes the heart. The reason for this—apart from any question of cardiac disease—is that a concentrated vapor first passes into the lungs. In the administration of chloroform it is indispensable to secure a proper admixture of air, and if this is not accomplished, any method of inhalation becomes dangerous.

We have so recently discussed these questions connected with chloroform administration, that we forbear from further comment. We cannot, however, conclude without expressing our conviction that with our existing knowledge of anæsthetics, no one is justified in using chloroform as the anæsthetic when ether can be substituted.

HYGIENE OF WRITING IN SCHOOLS.

AN interesting paper has recently been published by Berlin, on the influence upon the eyes and the spine of school children which so simple a matter as the position of the copy-book, in writing, may exert. It is based upon the report of a commission appointed to investigate the effect of slanting writing in the schools of Würtemberg. It was found that the attitude assumed by the child in writing was determined by the position of the book; and optical and physiological reasons are given for this fact. In writing, or drawing with straight lines, the visual axes move, by perference, in two general directions, vertical and horizontal, because in looking upwards or downwards, or to either side, their paths are straight, while in diagonal movements they describe a curve.

Three hundred and seventy-one children were carefully studied while in the act of writing, and it was discovered that about 93 per cent. of them made the down-strokes in a direction nearly at right angles with that of the base line, *i.e.*, the line connecting the centres of rotation of the two eyes and forming a triangle with the visual axis in convergence. This is done with least strain when the copy-book is tilted toward the left; when the child is compelled to write with the book parallel to the edge of the desk, he brings the base line perpendicular to the down-strokes by turning his head towards the right and twisting his spine. This contortion brings the eyes nearer to the page, and the left eye nearer to it than the right.

In a discussion of this subject at the meeting of the Ophthalmological Society, at Heidelberg, Laqueur and Manz favored the slanting system of writing with an oblique position of the book, on the ground that it throws the work more on the flexor muscles of the forearm, which are naturally stronger than the extensors, and Berlin dwelt upon the fact that this system admits of greater rapidity of execution.

A practical point in ocular hygiene is the material provided for children to write upon. The common slate has incurred the disapproval of ophthalmic surgeons, and Horner strongly advised that it should be banished from the schools. As its surface is shiny and presents an insufficient contrast with the letters, it necessitates a nearer approach of the eyes, and consequent excessive accommodation and convergence—the most important factors in the development of myopia. Cohn has, therefore, caused artificial white slates and special pencils to be manufactured, which offer the conveniences which have given the old articles universal currency among former generations of children without their hygienic defects.

KAIRINE.

IN the attempts to produce quinine, synthetically, now making in Germany, various new products which have been employed medicinally, have been brought forward. Although a true quinine has not thus far been accomplished, a near approximation to it has been made. Quinoline or chinoline is one of these. Recently, however, DR. FISCHER (*Berliner klin. Wochen.*, No. 45, 1882) has produced a phenol, to which he has applied the term *kairine* for short, although its true name is *oxy-quinoline—methyl-hydride* in chemical language. The salt which has been employed medicinally is the hydrochlorate. It has no irritant qualities, and in the normal state causes no obvious disturbance. All the members of the phenol group are antiseptic and antipyretic. The antipyretic stands in a nearly constant ratio to the antiseptic action. This fact is strongly suggestive, for if the power to destroy the organisms of disease or septic ferments, is the source of the antipyretic action, it is in a high degree probable that the febrile action is a consequence of the multiplication and growth of germs or ferments. The action of antiseptics lends support to the parasitic or zymotic theory of the infectious diseases.

Besides kairine, there have been introduced kairoline, and in addition to resorcin, quinoline and pyrocatechin, all members of the phenol group, and all possessed of antiseptic and antipyretic effects. We are confident that the time is not distant, when that most valuable of all antiseptics and antipyretics—quinine—will be produced in the laboratory of the chemist.

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THE ALKALOIDS OF THE HUMAN BODY.

LIKE certain plants, the human body has the power to produce alkaloids. Our readers have been placed in possession of the facts regarding *ptomaines*, those alkaloidal substances formed in the course of putrefactive decomposition. These ptomaines, like the alkaloids recently recovered from the urine in infectious diseases, are vegetable in origin. Beside these, recent researches have demonstrated the existence of similar alkaloids in the bodies of normal, living persons, formed in the digestive tube, and apparently elaborated, says Bouchard, by vegetable organisms—agents of intestinal putrefaction. The alkaloids found in normal urine represent a part of those produced in the intestines; they are absorbed and subsequently eliminated by the kidneys. It has been found that those disorders increasing intestinal putrefactive decomposition, augment the quantity of the alkaloids found in the urine. It is considered probable by Bouchard that the alkaloids of certain infectious maladies may have their origin in microbes contained in the tissues or fluids, as it seems established that in typhoid fever a portion of the urinary alkaloids originate in the intestinal canal.

It is obvious that these researches open up great possibilities in respect to the study of the pathogeny of infectious diseases in general. For example, the supposed typhoid poison may be developed by a certain form of fermentation taking place in the intestinal canal. Clinical therapeutics contributes to the number of these probabilities. Such a theory, or rather the new fact regarding the existence of a group of alkaloids, is supported by the results of the so-called "specific medication." The calomel purgative treatment of the first week, the iodine method, and especially, the carbolic acid medication of the whole course of typhoid, indicate by the results obtained from them, the probability of some kind of intestinal fermentation producing the material which, by its action on the solids and tissues of the body, causes the objective phenomena of typhoid. That which is thus rendered probable for typhoid, may also, in some form, be regarded as causative of the various infectious diseases.

ARTIST DOCTORS.

IN a very interesting article on "American Etchers," in the *Century* for February, Mrs. Schuyler Van Rensselaer mentions with honor, among other American etchers, the name of Dr. Leroy Milton Yale, and gives a very creditable example of his work, which, we observe, was an August vacation study. Etching has been only a recreation with him, yet he was one of the most earnest founders and fosterers of the New York Etching Club. We wish that more of our profession would take up similar artistic or literary studies, not only as a recreation, but because they broaden the mind and soften the hard grind of daily work. Sir Henry Thompson is a notable instance of how a very busy London surgeon can achieve somewhat of fame with the brush. Mr. Seymour Haden is always to be first named among the etchers, of course, but his chief fame is as an artist rather than a surgeon.

So far as we know, Dr. John H. Packard is the only active member of our Philadelphia profession who has done much in art, and even his pencil and brush have not given us of late as much as we could wish.

URETHRAL INJECTIONS OF BROMIDE OF POTASSIUM

DR. CAMBILLARD, in his *Thèse de Paris*, for 1881, advocates the employment of a solution of potassic bromide to quiet chordee. Every one will admit, he truly says, that the painful erections called chordee are very difficult to relieve, and that the number of the remedies proposed is only equalled by their inefficiency. He has obtained uniformly good results from urethral injections of the following:

℞.—Aquæ, ... ℥ij.
Glycerini, ... ℥iij.
Potassii bromidi, ... ℥iss.
Tinct. opii, ... ℥j.—M.

Sig. Four injections of this quantity in twenty-four hours.

To prevent the nocturnal attacks, he insists that the last injection be practised just on retiring for the night. These injections cause almost no pain, and are very effective in relieving the distress.

THE College of Physicians of Philadelphia has just been made the recipient of the generous gift of $5,000, from its distinguished Fellow, Dr. S. Weir Mitchell, as an entertainment fund; the interest to be expended annually for the purpose implied. This selection of a purpose has been wisely made. Founded in 1787, the College of Physicians is at once the oldest, the wealthiest, and among the most select of the medical societies of the country; and it is as important that it should set an example of this kind as that the wealthy and influential citizens of a community should lead in its social life. The commodious rooms of the College afford ample space for entertaining a large number, and its magnificent library and valuable museum are important adjuncts for such a purpose. We predict that the impetus recently given to the activity of the College in the direction of clinical and scientific work, will be increased by this new movement, and that it will also stimulate the contribution of money required for the proposed enlargement of the building so as to accommodate it to the growing needs of the library and museum.

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REVIEWS.

THE SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA. By W. S. PLAYFAIR, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College, etc. 12mo. pp. 92. London: Smith, Elder & Co., 1883.

The Same. 12mo. pp. 111. Philadelphia: Henry C. Lea's Son & Co., 1883.

IN this attractive little volume Dr. Playfair has collected the two papers on the treatment of nerve prostration and hysteria, which he published in the *Lancet* in 1881, and his introduction to the discussion on the same subject at the late meeting of the British Medical Association. Dr. Playfair is a firm believer in the efficiency of Dr. Weir Mitchell's "rest cure" treatment in properly selected cases, and he cites some very striking examples of cure, which he has obtained under this method. Like Dr. Mitchell, he lays particular stress upon the necessity of isolation of the patient and her removal from unwholesome domestic surroundings, and he is satisfied that any relaxation of this rule will prove an absolute bar to success.

Although Dr. Mitchell, in the introduction to his little volume on *Fat and Blood*, very modestly disclaims any thought of "putting forth anything very remarkable or original" in his treatment of neurasthenia by rest, systematic feeding and passive exercise, nevertheless, we think that the merit of having introduced it as a method unquestionably belongs to him, and we regret to see that there has been a disposition in some quarters to deny this. On this point Dr. Playfair, we are happy to find, does full justice to Dr. Mitchell, as will be seen from the following extract: "I feel proud to say that, having carefully studied what has been written on the subject, I can nowhere find anything in the least approaching to the regular, systematic, and thorough attack on the disease here discussed.

"Certain parts of the treatment have been separately advised, and more or less successfully practised, as, for example, massage and electricity, without isolation, or isolation and judicious moral management alone. It is, in fact, the old story with regard to all new things. There is no discovery, from the steam engine down to chloroform, which cannot be shown to have been partially foreseen, and yet the claims of Watt and Simpson to originality remain practically uncontested. And so, if I may be permitted to compare small things with great, will it be with this. The whole matter was admirably summed up by Dr. Ross, of Manchester, in his remarks in the discussion I introduced at the meeting of the British Medical Association at Worcester, which I conceive to express the precise state of the case: 'Although Dr. Mitchell's treatment was not new in the sense that these recommendations were made for the first time, it was new in the sense that these recommendations were, for the first time, combined so as to form a complete scheme of treatment.'"

A TREATISE ON THE SCIENCE AND PRACTICE OF MEDICINE. By ALONZO B. PALMER, M.D., LL.D., Professor of Pathology and Practice of Medicine, and of Clinical Medicine in the University of Michigan, etc., etc. Vol. II. 8vo. pp. 866. New York: G. P. Putnam's Sons, 1882.

THE second volume of Dr. Palmer's work is now offered to the profession. It claims in many places to represent, as does the preceding volume, the special indications of American practice. The author is, indeed, convinced that many methods of treatment so successful in Europe, are not suitable to our climate, our habits of life, and in fact, to our constitutions. Moreover, he has remarked that statistics abroad are based mainly upon the results of hospital treatment, or upon what is the direct outcome of consultant practice, and are not, as they should be, the matured judgments of close attendance day by day, from the beginning and in private practice of each individual case. In consequence of these facts, many phases of conducting cases which appear reasonable and judicious to our European brethren, are to us antiquated and irrational. The second volume of this extensive treatise is not unlike the first in the general characteristics. Many subjects are described and but few omitted which should be contained in a work on general practice. Some portions of the work are tolerably satisfactory in details, and particularly those which relate to affections of the respiratory tract. In his exposition of nervous diseases, the author betrays, we believe, a want of familiarity with their protean clinical aspects as well as with their minute morbid changes, which can but lessen the value and importance of his teaching. Here and there throughout this work, we encounter practical hints of considerable value in the management of cases, and certain therapeutic combinations recommended by the author are worthy of remembrance.

The pathological part of the second volume shows, we regret to say, rather the research of a gleaner in others' fields than that of one who has steadily worked upon a fruitful soil with the desire of making personal acquisition. The style throughout this volume is not invariably what is admirable, and occasionally we find the author betrayed into using expressions which are both lax and personal; such defects of writing should be remedied in another edition of the work. As a guide for students, we can scarcely recommend Dr. Palmer's work, since in those of at least two well-known American authors, we have works either of higher scope or more lucid exposition. To the general practitioner there are some paragraphs here and there which can be advantageously read and perhaps become the origin of well-considered practice.

A STUDY OF THE TUMORS OF THE BLADDER, WITH ORIGINAL CONTRIBUTIONS AND DRAWINGS. By ALEX. W. STEIN, M.D., Surgeon to Charity Hospital, Genito-urinary and Venereal Division. 8vo. pp. 94. New York: William Wood & Co., 1881.

THIS monograph opens with a valuable collection of one hundred and fifty-five cases of tumor of the bladder, and then furnishes an excellent description of the benign and malignant growths which have their origin in this organ.

The chapters following, devoted to the consideration of the symptoms, diagnosis, and treatment of vesical tumors, cannot fail to impart to the reader much valuable information upon this very interesting class of cases.

Upon the question of treatment, the author not only expresses himself decidedly in favor of early operative interference for the removal of benign tumors, but also thinks that in many cases of malignant growth this procedure offers a reasonable hope of temporary, if not of permanent, relief.

In this statement, we think, the author only expresses the sentiment of the profession at the present time, which look with growing favor upon operations for the removal of these growths; for the results of the various operations to accomplish this object, both in

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cases of males as well as in those of females, have been sufficiently satisfactory to insure its position as a justifiable surgical procedure. Although exception might in some places be taken to the author's style, yet a perusal of this work cannot fail to waken a new instinct in, and give the reader a clearer idea of the diagnosis and management of this interesting, but distressing class of cases.

SOCIETY PROCEEDINGS.

MOTT MEDICAL CLUB, OF PITTSBURG.

Stated Meeting, January 8, 1883.

DR. WILLIAM WALLACE IN THE CHAIR.

DR. J. CHRIS. LANGE read a paper entitled

SOME CASES OF DIPHTHERIA TREATED BY MERCURIALS.

He said our knowledge of the action of mercury on the system may be defined, briefly, as follows: its effects are chiefly owing to a corrective influence on the quality of the circulating fluids, first—and, secondly, it is generative of more or less complete processes, antagonistic to, or substitutive of, diseased action or abnormal processes. Under its influence the secretions and exhalations are increased, the textures softened, morbid growths and deposits are removed, or their increase more or less perfectly hindered. Visceral and glandular enlargements diminish or disappear, phlegmonous inflammation of every kind is opposed, and in all inflammations hyperinosis is diminished, the red corpuscles are less inclined to aggregation, and the white ones to adhesiveness. The exudation of plastic lymph is limited, and, as a consequence, also the formation of false membranes. Further, mercury softens and destroys the tissues, impoverishes the blood, interferes with nutrition, and produces a condition of marasmus and cachexia.

In the consideration of the mercurial treatment of diphtheria—as in any other—the question arises: What do we desire to effect by the administration of the chosen remedy? The answer to this is that by its exhibition we desire to so modify it—the poison in the blood—and to so limit its pernicious action on the system, together with its product, that the patient may live during its continuance. It is proper to inquire, then, what are the events which, in diphtheria, threaten to terminate life; in other words, what are the causes of death, and also, what influence has mercury on them?

The six cases to be presented for consideration are the most unfavorable of a series of forty-three cases, treated by mercurials during the last two years. The other thirty-seven cases recovered, as they probably would have done under other reasonable treatment, as we have had, fortunately, no very malignant epidemic during this time. The six cases were such, as under other various plans of treatment formerly employed by me, almost invariably proved fatal.

The poison itself may be a cause of death; this may be so virulent, that life is incompatible with the blood that contains it, and the patient dies as soon as the unknown chemico-vital changes in the blood are sufficiently complete.

Case I.—E. S., female, aged 13 years, Coal Hill, South Side. First seen on the morning of February 12, 1882. Temperature 105°, pulse 140; extremities cool; had vomited once during the night, and complained of sore throat the day before, but had not seemed very sick. Membrane on tonsils; cervical glands enlarged, and cellular tissue infiltrated about the throat. She is restless and stupid; moans and tosses about in bed; she had passed a normal amount of urine, and had an evacuation of the bowels that morning; her abdomen was tympanitic. The next morning she had a collar of brawn; great tympanitis; congested conjunctivæ, and was comatose; she died at 2 P. M., that second day. I may mention her treatment, not as illustrative of either good or harm, for none could have controlled or even modified the action of the quantity or virulency of the poison she had received; it was 10 grains of calomel every hour, with ice to the throat, and stimulants.

Another cause of death, is the exudation of the membrane upon the mucous surface of the larynx, trachea, or both; with the tumefaction of the tissues beneath and about it. What can be expected of the mercurial treatment in this condition? It is freely asserted here in our city, that benefits impossible to be attained by other methods of treatment, are its results; and the cases related below would seem to agree with the assertion. If it be true that the membrane accompanying the laryngeal inflammation, and the tumefaction of the underlying structures be only in the least diminished, this would be of the greatest importance in this particular situation of the inflammation; and is it unreasonable to grant—with the knowledge that mercury opposes hyperinosis, and limits the exudation of coagulable lymph—that it may also do this in diphtheria, thus limiting the size and thickness of the membrane, and moderating the inflammation? If the obstruction of the air passage be sufficient to give rise to urgent symptoms of asphyxia, surgical measures will remove the patient from this danger to life, and expose him to another, to be mentioned further on. An interesting question is, what determines the inflammation to the larynx in one patient, and not in another? It is not the intensity of inflammation, nor the duration of the disease; for we see in one patient, the faucial membrane reproduced one or more times, the larynx remaining exempt; and again, the larynx involved before the detachment of the first faucial membrane, or, if true croup be diphtheritic, without any faucial membrane. With the fact at hand, that a certain individual will, from cold or exposure, take a tonsillitis, and another a laryngitis, and yet another a coryza, it is fair to assume that the surface selected by a diphtheritic deposit is determined by the same force.

On the 13th day of April, 1881, I was called to attend a girl seven years old, living on Stanton Avenue. She had had faucial diphtheria five days, the membrane was now being detached, and she had croup since the day before. She had been treated by a homœopath, who had left the case with the statement that she could not live ten hours. I gave her ten grains of calomel every two hours for twenty-four hours. On the 14th, the following day, dyspnœa was extreme, the extremities cool and blue, as were the lips; spasm of the glottis was frequent, and left her wet, cold, and blue. The treatment was continued until the morning of the 15th, when a slighter degree of dyspnœa being perceptible, the quantity was reduced to five grains. During the forty-eight hours in which she had taken four drachms of calomel, she had three stools. She continued to improve, and, on the 19th, the sixth day, her larynx was clear and her voice restored, when treatment ceased. She was slightly ptyalized; she had taken one ounce of calomel. After the first forty-eight hours her bowels had not moved; she had no sequelæ. On September 11, 1882, this same patient was again attacked, she was now eight years and five months old. Temperature 104½°; pulse 120; membrane on both tonsils and posterior pharyngeal wall; ten grains of calomel were given every two hours for forty-eight hours; bowels moved once. On the 13th, the third day, temperature 102°; pulse 120. From 13th to 17th, five grains every two hours.

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From 11th to 17th she took one ounce. Bowels not having moved since 12th, a spoonful of castor oil was given, and the mercurial continued. This patient would take absolutely no nourishment of any description, and very little water. 18th, membrane almost gone from fauces; slept all night except when disturbed to take her powders; had two evacuations of the bowels, and took the first spoonful of nourishment this morning. 19th, temperature 102°; pulse 130; a new membrane forming on fauces; ½ grain corrosive sublimate every two hours; calomel discontinued. 20th, temperature 101°; pulse 140; membrane larger and thicker than the first; patient exhausted; will not take spirits, nor meat extract, nor quinine, nor milk. Nasal and laryngeal mucous membranes free from the inflammation, Has always passed urine. Died on the 21st, of exhaustion.

This patient took absolutely no nourishment from the onset of the disease, and emaciated remarkably during the first few days. The history of these two attacks of this patient demonstrates, 1st. Either that the mercury exhibited early in the second attack prevented a laryngitis, which occurred during the first attack, before she had had mercury, or that a laryngeal inflammation, in diphtheria, is entirely accidental, and not determined by any idiosyncrasy as is the simple inflammation of the larynx, tonsils, or Schneiderian membrane, from cold or exposure; and next, that mercury is not a specific for diphtheria. This patient certainly had a sufficiency of it; one ounce and two drachms of calomel, and two grains of the bichloride; and the formation of a second membrane demonstrates that it entirely failed to control or modify the virulency of the poison. And, thirdly, in this aspect of the matter, namely, that the disease was not favorably influenced by the treatment, it is a justifiable conclusion that the treatment she received during her first attack may have had nothing to do with her recovery. This patient died of exhaustion; there were no complications, nor was there any other cause of death. I was at the bedside when she died. She was conscious, and asked for water; to give her this I raised her up, when her heart failed and I laid her down dead. It is proper to inquire how much, if any, of the direct cause of her death, exhaustion, was contributed by her treatment; this will be spoken of further on.

Another cause of death is uræmic poisoning; this is a rather rare occurrence in diphtheria, as rare as albuminuria is frequent, and this latter is rather a matter of scientific interest than of practical importance. It is not an unfavorable prognostic sign, and requires no special treatment.

Another cause of death, also rare, is said to be "blood poisoning"—secondary blood poisoning, from absorption from the affected surface. When in a certain patient, about to die, this absorption is said to have taken place, its signs and symptoms are so indefinite and mysterious, and so complicated with the signs and symptoms of the primary poisoning, that it must be confessed a gratuitous assumption; it is not indicated by the signs and symptoms of septic or purulent absorption in other conditions.

Another cause of death is when the membrane forms in the nares. This nasal diphtheria, especially when preceded by a deposit on the fauces, is very fatal. This is sometimes accredited to the, I think, erroneous assumption that the inspired air, passing over the affected surface to the lungs, is impregnated with the exhalations, and, perhaps, the special poison of this surface, or that there being so much surface in this situation (anterior and posterior nares), the membrane becomes correspondingly large, whereas, the truth is, these patients do not breathe through the nose—the nares are effectually closed, except to forced efforts; and there is no evidence to justify the belief that the soil in the nares is more favorable to the growth of the membrane than that in the pharynx or larynx; indeed, from its rarer occurrence here, it may be asserted to be less so. What so largely contributes to the exhaustion is, it seems to me, that these patients must keep their mouths open; and with their mouths open they are never in a state of rest, but in a state of continuous muscular action; this constantly disturbs the patient during sleep; he falls asleep, his mouth closes, want of breath wakes him up, he cannot open his mouth while asleep, and this recurs every few minutes; hence, I have found it beneficial to insert between the teeth a pencil, or other suitable object, that his muscles may relax, and he may still breathe. This closure of the nares is also an additional impediment to his swallowing. The air compressed, during the act of swallowing, exerts a painful pressure on the pharynx and posterior nares when it cannot escape through them. Again, when the nares are closed, the blood retains more carbonic acid and obtains less oxygen, it requires an effort to breathe, and an effort to breathe, under any circumstances, implies imperfect oxygenation of the blood; a person running breathes with an effort, because of this; a person with pulmonary emphysema might breathe faster, and so perfectly oxygenate his blood, but as this would be a voluntary act, and would require an effort, he does not do it—cannot do it long—and so exists with the least amount of oxygen, and the greatest amount of carbonic acid, compatible with his particular status of health; and the same is true of the patient with nasal diphtheria. These seem to me the principal circumstances that contribute to the fatality of nasal diphtheria.

On the 26th of April, 1882, I saw a boy, 4 years old, and on the next day a girl, 7 years old, living in the same tenement—98 Mulberry Street—both with nasal diphtheria, following the faucial membrane by a day or two, In the 7-year-old the membrane was visible in the anterior nares; in the 4-year-old it was not so. In both cases the nostrils were filled with muco-pus, which freely dribbled down upon the mouth unless cleansed away. They both lay with open mouths and red conjunctivæ, and it was with great difficulty any nourishment could be administered; they were both stupid; ten grains of calomel were given every two hours for four days, this being one ounce for each. A small stick wrapped with canton flannel was placed between the teeth. The 4-year-old had but one or two stools daily, but the 7-year-old was violently purged during the first twenty-four hours; she was accordingly given ten grains of bismuth with ten drops of U. S. P. solution of morphia after each powder of calomel; this was discontinued on the third day, as she was no longer purged. On the sixth day they were both rather better; the 4-year-old now refused to take his powder, and was given one-eighth of a grain of corrosive sublimate every three hours, instead of five grains of calomel which the 7-year-old was still taking. They continued to improve from day to day, and on the 4th day of May the nares of both were clear. They were both slightly ptyalized—but very slightly; they got no treatment for this. I desired in their cases to use the mercurials only and energetically, and succeeded. They received no iron, quinine, potassic chlorate, nor stimulants. I ceased attendance on the 7th of May—the twelfth day. The girl had no sequelæ. On the 15th I was again called to see the boy—the 4-year-old—who had, not paralysis, but contracture of the flexors of the extremities. His gastrocnemii were so contracted that his toes were on a line with his legs, his forearms were strongly flexed on his arms, while his fingers were clamped into the palms of his hands, which were flexed on the wrist and which he could not

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use. It was with difficulty that his hands could be opened and his forearms extended. Believing this to be a temporary condition only, I gave him no treatment for it, and it gradually disappeared during the next ten days. These children are both well at this writing. I may mention that, as a matter of cleanliness, a weak solution of carbolic acid was used to wash out the nares, by means of a Davidson syringe. During the nine days of treatment these children took—the 4-year-old, one ounce and two drachms of calomel and two and a half grains of the bichloride; the 7-year-old, one ounce and five drachms of calomel.

As illustrative of the tolerance of mercury in diphtheria, the following case is of interest:

Babe, 11 months old, was brought to my office on the twenty-second day of August, 1882, with a diphtheritic membrane on its fauces, and the usual signs and symptoms of laryngitis. It was voiceless, had dyspnœa, cool extremities, and a hot head, with spasm of the glottis on coughing; it had been sick three days. It took five grains of calomel every hour. After a few days it improved; it nursed better; its dyspnœa diminished; it gained in strength, and soon began to expel membrane; its bowels were never moved more than two or three times in twenty-four hours; and its voice returned. It took this quantity of calomel seven days and twelve hours, making one ounce and seven drachms; and it sat upon its mother's arms, looking cheerfully around the room; no evil effect of the mercurial was visible; it died on the ninth day, from—as its mother says—a choking spell. A piece of membrane, from its trachea, probably—for its voice was restored—was so lodged by a cough as to occlude the air passage. There is no doubt in my mind that this accident alone caused its death. It was comparatively well, coughed, got blue, and was dead before I could get there—nine doors from my office. It will be admitted that this case may be counted as a cure of diphtheritic croup; and that the mercurial could not have been, in any manner, causative of nor contributive to its death.

The deleterious effects of mercury were not visible in any of these cases, not excepting the eight year old girl, who died of exhaustion during her second attack. I believe the mercury contributed nothing to this exhaustion; 1st, because it did not purge her; next, because there is no evidence to prove that mercury impoverishes the blood, interferes with nutrition, or produces a state of marasmus or cachexia, except it be given for a long period of time, as is done for chronic disease; and 3dly, when it is remembered that our experience of cases, where, on the eleventh day a new faucial membrane is completed, and that will not feed, cases that have not been treated by mercury, but by any method you please, when it is remembered that our experience of such cases is always disastrous—it is not warranted by the facts to conclude that her treatment was in any degree contributive to the death of this girl.

The quantity of the medicine administered to these patients may have been excessive, not for their tolerance of it, but because it seems impossible it should be absorbed; this may be true—I do not pretend to know, and I do not give so much in fair cases, *i. e.*, cases such as have recovered under other plans of treatment I formerly employed. I see no reason to give an infant much less than a child of 4 or 6 years, because, the younger the child the less likely it is to be purged. I prefer the mild chloride, because pouring it upon the fauces may have a local effect, as it has in other conditions. The bichloride is more easily taken. I have four cases in the same family under this treatment at the present writing; they are what I have designated as fair cases, cases that under the treatment I formerly employed, would probably recover—they are 4, 6, 9, and 11 years old respectively, and are taking five grains every three hours, with a grain of quinine thrice daily. They will continue this until they have taken two, three, or four drachms, or until their membranes are gone, or going, or until their gums show the effects of the remedy. These four cases are not included in the series of forty-three cases. Sometimes I give four drachms rapidly and then change to quinine, or quinine and the tincture of iron, with or without stimulants. The salivation that occurred in some cases, has never been of any gravity; they complained of sore mouth, but it has not been bad enough to prevent eating or nursing. The six cases related to you were, as I have said, such as under all other methods of treatment, I have been accustomed to see die; for this reason they received this remedy in such quantity.

Exhaustion is the direct cause of death, in the great majority of those who die of diphtheria. It is to this danger that the surgeon exposes the patient, when, by a tracheotomy, he rescues him from that more immediate one, asphyxia. It is to exhaustion, also, that the necessarily perturbating treatment, the induction of vicarious elimination by the bowels and skin, contributes—in uraemia; and the conditions attending nasal diphtheria, before enumerated, are also conducive to exhaustion. It is therefore necessary, to any successful treatment, to guard against the increase of exhaustion, by every possible means; food, medication, stimulants, etc., none of which need be excluded by the administration of mercury.

Although it may appear incongruous to use, at one and the same time, a supporting treatment and mercury—a sedative and antiphlogistic—this latter may become the most important factor in the restorative process; as an instance of this, drastic purgatives, generally so debilitating, are, for a patient almost moribund with dropsy and uræmia, the most powerful restoratives. It may be, that in an analogous manner, or in some unknown manner, mercury is tolerated, as well in diphtheria, as purgation in dropsy; future experience only can demonstrate if this be true, and whether it has a curative or modifying influence on the disease which outweighs its possibly injurious effects, together with its best form of administration and its proper dose.

DR. MCCANN said that a tolerably extensive experience with diphtheria, extending over a period of eighteen years, enabled him to confirm several of Dr. Langes's observations in regard to the calomel treatment. First, that calomel given in hourly doses of from gr. iij to gr. vj to children under three years old does not purge excessively, if it purges at all; that it does not prostrate even when its use is continued during twenty-four, thirty-six, or forty-eight hours; that it does not salivate; that it arrests the spread of the exudation, and causes the membrane to separate at an earlier period than do the ordinary methods of treatment; that convalescence begins earlier, and progresses more rapidly and with fewer complications; and that older children and adults bear proportionately larger doses of this remedy. His personal experience with calomel in the treatment of diphtheria leads him to believe that in the vast majority of cases, if taken early, within twenty-four or thirty-six hours after the onset, the disease is not difficult to control. It may look like "heavy dosing" to administer calomel to a child in the doses Dr. Lange has recommended, especially in the light of modern teaching, but, in his judgment, it is not so "horrible" as to sit by the bedside of a child that is slowly choking to death with diphtheritic croup; nor so horrible as to submit that child to tracheotomy in the too often futile hope that life may be saved by the operation; nor half so horri-

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ble as to look in utter helplessness and despair at the livid face and swollen neck and gangrenous throat, and occluded ichor-weeping nostrils of the victim as it drifts hopelessly to death. He had tried this remedy faithfully in diphtheria, not once nor twenty times, but in more than a hundred as bad cases as he had ever seen, and it had not disappointed him where there was a reasonable hope. He had relied upon it in his own family, and when his own children seemed stricken with death. It did not fail, did not disappoint him then; nor does it ever, when given fearlessly, and persevered with to the end.

DR. MURDOCH said that he desired to enter his most earnest protest against this wholesale use of calomel in the treatment of diphtheria. His experience in its use is indeed but limited. It extends to but two cases, which were under the care of Dr. Reiter, who may justly be called the father of this practice. Of course he could not say that these two cases would have recovered under a supporting treatment, but he knows that they died promptly under the calomel treatment, which in his opinion is an exhausting treatment.

He regarded diphtheria as primarily a local disease, which rapidly becomes constitutional. The local treatment should be by antiseptics, and such means as dissolve the false membrane, viz., lime water and carbolic acid. The constitutional treatment should be by germicides, such as the tincture of iron, etc. But more important than all is the maintenance of the vital powers by alcoholic stimulants and proper diet until nature is able to eliminate the poison.

This, in brief, is the treatment advocated by Morell Mackenzie, Jacobi, and, in fact, by all the more recent authorities who have studied the subject. His success by this plan of treatment has been quite satisfactory. The use of calomel in such doses as are recommended by Dr. Lange, in a disease so exhausting as diphtheria, seems to him a step backwards. He can only explain the tolerance of calomel in diphtheria on the supposition that for some reason it passes through the system unchanged. Surely, if this were not the case, no patient could survive such enormous doses. He has great respect for the opinions of Dr. Lange, and the gentlemen who differ with him, as he had also for the opinion of Dr. Reiter, the originator of this mode of treating diphtheria, but he cannot permit this to weigh against his own experience.

DR. EMMERLING said the mercurial treatment of diphtheria, especially with large doses of calomel, is not new, but was practised in 1821 with varying results by Bretonneau. Much mischief generally ensued, when the remedy was administered until salivation, with the general effects, was produced. He has not employed calomel, but prefers and has frequently and with satisfactory results given corrosive sublimate (in dose of $\frac{1}{16}$ to $\frac{1}{32}$ of a grain every two or three hours, according to age), selecting for its employment the severer forms of diphtheria, those in which the old method of treatment gave very unsatisfactory results. He places great reliance on nourishing and stimulating treatment from the onset.

DR. RANKIN said that he disagreed with Dr. Lange. He has treated a large number of cases of all forms of diphtheria, and has employed all methods of treatment. Diphtheria is an asthenic disease, requiring supporting, stimulating, and antiseptic treatment from the beginning. Dr. Lange has given us no positive theoretical principle whereon to base his treatment, and as other remedies have yielded better results, it becomes our duty to employ them. If mercury is not a positive antiseptic, it would be preferable to leave the disease to nature, as it defibrinates the blood. Mercury and bloodletting had their advocates years ago, but because of unfavorable results they have been almost entirely abandoned.

We have all observed cases of a mild form, which mildness may be due to the presence of a large amount of vital power, which successfully resists the effect of this poison. It is, perhaps, in this class of cases that the mercurial treatment proves successful. Before employing a remedy in a disease requiring energetic treatment, we should know why we use it, and what to expect from its use. It has never been proven that mercury is antagonistic to diphtheria. Comparing the experience of prominent observers with his own, he is led to conclude that diphtheria is a local specific inflammation, and a constitutional disease. Its treatment must, therefore, be both local and general. Good results are obtained from astringents, the perchloride of iron being the most reliable. Solvents are also useful, as lactic acid, lime water, chlorate of potash, and steam. The best antiseptics are the permanganate of potash, carbolic acid combined with sulphate of iron, salicylic acid, boracic acid, quinine, sulphur, chromic acid, eucalyptus globulus, benzoate of sodium, chlorinated soda, and chloral hydrate. The diet should be concentrated and nourishing. Alcoholic stimulants must be employed boldly. I believe that alcohol is as antagonistic to diphtheria as belladonna to opium, or quinine to malaria. Patients with diphtheria will bear an amount of alcohol which, under any other circumstances, would not be tolerated.

DR. ASDALE spoke of the rapid necrosis and early detachment of diphtheritic membrane observable under the mercurial influence. The effects are recognizable usually before the end of the first twenty-four hours of treatment. Diphtheritic subjects tolerate and seem to require enormous doses of calomel, or of the corrosive sublimate; he preferred the bichloride, because of its prompt action, and because it can with great facility be administered in simple solution. To a child of five years he would give, unhesitatingly, one-eighth of a grain of the bichloride of mercury, or, ten grains of calomel, every two hours. These doses do not purge; do not pytalize; and do not interfere with alimentation. He desired especially to mention, that under no other medication in diphtheria had he found the appetite so well preserved. Occasionally, but infrequently, the gums are made slightly tender; hasty evacuation of the intestine may occur several times during the first day, but after this the bowels are moved but one or twice in the twenty-four hours; this is the rule. If the dose given of the bichloride proves excessive, vomiting will happen, and, perhaps, straining at stool; but no consequences more unpleasant; and only reduction of the dose is requisite.

Treatment must be energetic until no new exudate appears, and until the membrane already formed (if visible) is distinctly limited in its extent, and altered from its original, smooth, white, and shining appearance, to a dirty yellow, or brown color, with loosened edges, betokening a speedy separation—this will be manifest in twenty-four to forty-eight hours: the mercurial should then be withdrawn, or if continued, should be given in smaller doses for a little longer time; the corrosive chloride may now be advantageously combined with the chloride of iron, if there is severer constitutional depression, and alcoholic stimulants freely administered—this supplemental treatment will be found required *only* in the serious and protracted cases; generally, *a complete cure may be obtained in two or three days.* He urged the application of cold to the throat, if there is great swelling of the tonsils, œdema of the uvula, or tumefaction of the neighboring lymphatic glands; topical treatment he did not employ, other than cleanliness and comfort make necessary. Applications of any kind made

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through the mouth or nose he regarded as generally worse than useless—to young children annoying and often a positive injury. Local medication alone can not be depended upon to do any good. If the obstruction be of the nose, or in the trachea, or larynx, we must be governed in the use of the mercury by the rational signs present, judging of each case and its needs by the mitigation or disappearance of the urgent symptoms. This assurance he could give that the remedial influence of the mercury may be confidently looked for, as a rule, within forty-eight hours from the institution of the treatment; provided, that it has been *timely* and *energetically* employed.

Dr. Asdale believed that early separation of diphtheritic membrane is accomplished by virtue of the antiphlogistic action of the agent employed; he thoroughly believed in the identity of membranous croup and diphtheria.

Experience had long since taught the medical practitioner that it is not only *not pernicious*, but beneficial and wise to employ antimony and turpeth mineral in the management of pseudo-membranous croup; the bulk of the profession has, however, yet to learn that the "alias" of the latter-named condition is diphtheria.

Medical authors and teachers of medicine, at the present time, do either ignore the subject of the mercurial treatment of diphtheria, or mention it but to slight it. Why is it so? Simply because of inexperience, because their minds are filled with the single idea of the dreadful asthenia (?) of this terrible disease, and they have not ventured to use that treatment which must, as they conjecture, but contribute to exhaustion, or, if attempted at all, it has been with a faltering, fearing hand, and hesitating thus, they have failed—and so failed to be convinced.

DR. ASDALE regarded diphtheria as a disease which (derived through contagion) must be met by early and energetic antiphlogistic measures; its course is swift; hence, if we are to be successful, it must be through the use of those agencies, which will most promptly and decidedly limit the extension of the inflammatory exudate, and which will accomplish this object with the least constitutional depression.

There is no specific cure for diphtheria; unfortunately, there are cases of the disease against which no treatment can prevail, but he believed that by the antiphlogistic (mercurial) treatment, more may be saved than by any other. He had employed this treatment, for over six years, in eighty cases; the deaths were eight. An analysis of the fatal cases would prove nothing against the treatment; they must have perished, taken as he had found them, no matter what had been tried. The deaths were all in cases of nasal and nasopharyngeal diphtheria, except one, that a case of diphtheria of the fauces and trachea also in which death by suffocation occurred on the fifteenth day; a piece of membrane, in the act of coughing, lodged in the larynx.

The other seven deaths occurred, one on the eighth day, and one on the thirteenth; the remainder at dates varying between these: in all except two, the diphtheritic membrane had disappeared, and the fatal termination succeeded upon the development of uræmia—total suppression of urine being observed in several instances; continuing, in one case, for four days before death.

DR. LANGE, the reader of the paper, said: I am prepared, gentlemen, to hear those of you who have not employed this treatment, utterly condemn it; I did that before I employed it, and, unpleasant as it is, I can recall some cases ending fatally which, had they received it, would, it is now my belief, have terminated in recovery. I am constrained to come to this conclusion only by my employment of the treatment. I am much strengthened in my opinion of the benefits of the remedy, and of its tolerance in such doses, by the like opinion of every gentleman here who has employed it, but one, who has used it only in severe cases, and here he has "frequently used it with satisfactory results." To those of you, gentlemen, who object to the treatment, and, outside of this Club, you are of the large majority, I have to say that I cannot comply with your call for statistics—there are none. Neither can I explain the manner of the action of this remedy in diphtheria any more lucidly than you can that of the action of quinine in malaria or of mercury in syphilis.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, January 1, 1883.

FIRST VICE-PRESIDENT, DR. T. M. DRYSDALE, IN THE CHAIR.

DEATH FROM EMBOLISM.

DR. WM. GOODELL reported the death of the patient, from whom he had removed an uterine myo-fibroma. (Case reported by Dr. Baer in the discussion on Dr. Drysdale's paper, at the meeting of December 7, 1882.) The patient had progressed favorably, but some weeks after the operation, while straining at stool, she had evidently loosened a portion of clot on the proximal side of one of the venous ligatures. It passed into the pulmonary circulation and quickly caused death.

WHAT IS THE PROPER MANAGEMENT OF THE BOWELS AFTER PERINEORRHAPHY?

DR. GOODELL had recently operated for the relief of lacerated perineum, upon an insane woman who had been sent to him for that purpose from an asylum. Her insanity commenced after labor, and was probably due to a complete laceration of the perineum extending two inches up the rectum. It had always been his habit to prevent any action of the bowels during the first week after the operation. This patient, soon after coming out from the influence of the anæsthetic, tore off the bandage from her knees, removed the catheter, and by severe straining efforts secured a movement from the bowels. As she could not be controlled, laxatives were given to secure liquid stools and avoid straining. The patient walked freely about the ward from the day of operation. The Doctor expected the operation to be a failure under such circumstances; but to his surprise, on removing the sutures, he found that in the rectal portion and the important part of the perineum union had taken place.

His attention has been called by this case to the question of the advisability of keeping the bowels constipated after this operation. He intends to try the effect of laxatives in future cases.

DR. R. P. HARRIS reported the case of a woman who, after the operation of perineorrhaphy, would strain, and her efforts at defecation opened the wound to nearly its original extent. In a second operation on the same patient the bowels were kept free and union was perfect.

DR. E. E. MONTGOMERY, after operating for lacerated perineum, does not use a catheter, but allows the patient to pass her water, as he does not consider healthy urine disadvantageous for a wound. He has been in the habit of using compound liquorice powder to keep the stools liquid. He has had good success in both primary and secondary operations upon the perineum when the rectum was involved.

The following members were then elected

OFFICERS FOR 1883:

President.—Dr. Richard A. Cleemann.

Vice-Presidents.—Drs. B. F. Baer and W. T. Taylor.

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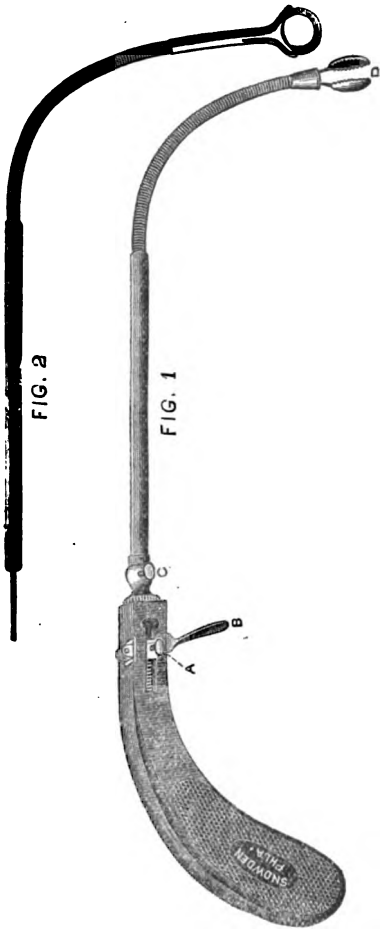
Secretary.—Dr. W. H. H. Githens.
Treasurer.—Dr. Alfred Whelen.
Librarian and Curator.—Dr. E. E. Montgomery.
Publication Committee.—Drs. John H. Packard, B. F. Baer, Elliott Richardson, James V. Ingham.
Councillors.—Drs. R. P. Harris, L. D. Harlow, Wm. Goodell, T. M. Drysdale.
Library Committee.—Drs. Horace Williams, D. M. Cheston.
Committee on Proceedings.—Drs. A. H. Smith, E. E. Montgomery.

NEW INVENTIONS.

FLEXIBLE TUBE FORCEPS AND GUILLOTINE.

BY CARL SEILER, M.D.,
OF PHILADELPHIA.

THE removal of foreign bodies and small neoplasms from the laryngeal cavity is often attended with considerable difficulty on account of the inability to reach and grasp the foreign body with the instruments at hand, even if it is plainly to be seen with the laryngeal mirror. The position of pins or fish-bones in the larynx is frequently such that a stiff forceps can not grasp them; either its blades open antero-posteriorly or laterally, and the bend or curve given to the instrument will often be found either too great or too small in a given case.



In order to obviate this difficulty, I had a Stœrk tube forceps altered by cutting off the curved portion of the tube and substituting for it a close spiral of steel wire ending in a bell-like tip. The steel wire to which the blades were attached I had replaced by a stout copper wire stiff enough to retain any course given to it, and at the same time flexible enough to allow of frequent changing of the course. The rings attached to the sides of the universal handle were replaced by a disk, so that no matter in which direction the course of the tube pointed the handle could always be held in the same position of the hand. The same change was made with the tube of the guillotine knife. This instrument I exhibited at the annual meeting of the American Laryngological Association in 1880.

The complicated nature of the Stœrk handle makes it, however, a very costly instrument and the position of the hand in holding it when the forceps or guillotine is used is rather awkward and it is difficult to hold the instrument steady. For these reasons I suggested a different handle, and Mr. W. Snowden made an instrument which answers the purpose admirably and of which the cut is an excellent representation.

The handle, made of ebony, is shaped like the butt of a pistol. The straight portion is hollow and contains a spiral spring, while it ends in a hollow central part into which the tube is fastened by a bayonet-joint and held fast by a set-screw (C. Fig. 1). The copper wire to which the forceps blades are attached, and which are seen projecting from the bell-tip at D, is fastened by the set-screw A, in a lever inserted into the handle the lower end of which, B, projects like the trigger of a pistol.

When the instrument is to be used, the handle is grasped like a pistol with the forefinger resting upon the trigger, by pulling which the blades of the forceps are drawn into the bell-tip of the spiral tube, and are thereby closed. The tendency of the spiral to elongate when pressed upon, causes a slight forward motion of the tip, this to a certain extent preventing the upward motion of the blades when they are closed, an accidental but admirable property of the instrument which facilitates the grasping of the foreign body or neoplasm in the laryngeal cavity. The flexible portion of the tube enables the operator to give it any desired curve, and simply turning the wire within the tube before its end is held in the trigger by the set-screw enables him to set the blades at any angle he may desire. It is necessary to have the straight portion of the tube stiff, as otherwise the instrument would bend close to the handle when a neoplasm or foreign body, which requires some force for its removal, is to be lifted out of the laryngeal cavity.

Fig. 2 represents the annular guillotine, which, like the forceps, can be bent to any desired curve and set at any angle, and which fits in the same handle.

CORRESPONDENCE.

THE LOCAL APPLICATION OF CARBON DISULPHIDE FOR THE RELIEF OF PAIN.

To the Editor of THE MEDICAL NEWS.

SIR: In the issue of THE MEDICAL NEWS for April 8, 1882, I brought to the notice of the profession the employment of the bisulphide of carbon for the relief of pain; the claim there advanced being that against pain neuralgic in character, the local application of this seldom used drug was almost certain relief, amelioration following in a vast majority of instances. That such a claim depends not alone on my own observations, but will stand the test of others, is shown by the following communications I have received from an independent and therefore unprejudiced observer, Dr. Alexander M. Stout, of Sussex, Waukesha Co., Wis.

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Under date of January 10, 1883, he writes:

"In accordance with your request, I make the following report upon the use of carbon disulphide for the relief of neuralgic pains.

"An application of the drug was made, immediately after receiving it from New York, upon a middle-aged lady, who every week or two suffered from frightfully severe attacks of supraorbital neuralgia. I followed your directions minutely; several applications were made, but without any amelioration of the pain. The patient informed me that the medicine seemed to send darting pains all through her head, and refused to allow me to make another application. Next day she had an ugly brown patch at the seat of application, which remained a week or ten days. She is no longer one of my patients. I was somewhat disgusted.

"A short time after this, however, I applied the remedy for intercostal neuralgia upon a man, a fiddler by occupation, and who was unable to pursue his calling on account of what he termed 'neuralgia of the heart.' A physician near here had been treating him for some time for such a disease. As soon as the smarting which is produced by the carbon disulphide had subsided, he drew a long, deep sigh of relief, and with a broad smile said, 'Why, Doctor, you have cured me!' and went away protesting much gratitude. He has not since been troubled by any pain whatever.

"Since that application I have employed the drug daily, and with magical and most delightful success. I have no medicine which acts so quickly, easily, and promptly."

In a second letter he communicates the following interesting case, and brief remarks.

"Last Monday (Jan. 15, 1883) I was sent for to see one of my patients; a strong, robust man, who I have had under treatment for several days for a light attack of pneumonia. Upon reaching his bedside, he informed me that he should go crazy, wild, if he had to suffer any longer from the pain in his head, an occipital and frontal neuralgia. In three minutes he was resting quietly, entirely relieved by our remedy. I sincerely feel under obligations to you in this matter, as the drug has been so great a help to me in so many intractable cases of neuralgia, whereas, before I had the bisulphide, many patients went unrelieved and dissatisfied away from me."

After such earnest testimony as to efficiency of the drug, by Dr. Stout, comment on my part is rendered unnecessary.

Very respectfully yours,

E. SANDERS, M.D.,
Attending Physician to the Dispensary Department of Mt. Sinai Hospital.

NEW YORK, January 24, 1883.

CONFIDENTIAL COMMUNICATIONS.

To the Editor of THE MEDICAL NEWS.

SIR: A writer in THE MEDICAL NEWS of January 20th urges the adoption by the legislature of Pennsylvania of a statute of the State of New York, which prohibits a practising physician from disclosing, under any circumstances, any information which he may have acquired in a professional character, which information was necessary, on his part, for a thorough understanding of his patient's case. If I remember rightly, the legislature of Pennsylvania at its last session was asked to pass a similar law; and it would seem probable that our present legislature will be urged to enact a measure similar or identical in character with that of our northern neighbor. It would seem that, in accordance with traditional policy, New York having taken physic, Pennsylvania must be purged.

Strangely enough, the expressed desire for such a statute seems to come from members of the medical profession. I have no doubt that this feeling has its origin in an honorable and chivalrous desire to be faithful to those personal trusts that are confided to the physician by those who are the objects of his professional care; and within certain limits the sentiment is a just and proper one. But it should not be carried to the extent of depriving us of just means for our own protection, nor of making us the virtual abettors and accomplices of vice and crime. "An accessory after the fact," says Wharton, "is one who knowing a felony to have been committed by another, receives, relieves, comforts, or assists the felon," and although the enactment of such a statute might change the legal consequences of such an action, its moral effect when done for the purpose of shielding the felon from just punishment, must remain just what it has ever been deemed in the past, as detrimental to the general welfare.

The reasons assigned by the writer of the article alluded to in support of this measure are these: 1st. Where a husband has acquired syphilis by illicit sexual intercourse, he will feel greater freedom in stating all the facts of his case to his attending physician if he is aware that his medical attendant is restrained by law from testifying in court to any knowledge thus gained, thereby enabling him to escape a conviction for adultery or for any other crime committed by him as an incident of his illicit intercourse. It is claimed that the more thorough knowledge thus gained will enable the physician to treat his patient more efficiently than he could otherwise do.

It is difficult to understand how the details as to the precise time, place, and manner in which the disease was acquired, or a knowledge as to the particular person from whom it was derived, can promote the efficiency of its treatment; for this disease, in its primary character, is readily and certainly recognized by any one who is competent to treat it. On the other hand, it may well be claimed that the proposed measure would remove one of the strongest barriers which now exist against indulgence in sexual vice, and it would certainly give to it an additional protection.

The second reason assigned in favor of this measure seems entitled to still less favorable consideration than the former one. It is this: "A man in attempting a burglary is met by an excited and outraged opponent, who strikes to kill, and" (the burglar, we suppose) "receives a blow in the temporal region. There exist really a fracture of the bone and laceration of the middle meningeal artery." The criminal eluding arrest, and not understanding the gravity of his case, applies to a surgeon for treatment, and deceives him as to the nature of his injury, by a false statement as to the manner of its reception; and the loss of his valuable life is the dire consequence. "Other cases," says this writer, "suggest themselves" (similar accidents, occurring in the perpetration of rape, highway robbery, and murder would be likely to suggest themselves in this connection); but he seems to think that these are sufficient to induce the legislature of Pennsylvania, and of every State in the Union, to enact a statute similar in effect to that which now exists in New York.

If all that can be said in favor of such a measure amounts to this, that it will more effectually shield vice, and that it will more efficiently protect crime, by bestowing additional secrecy to the one, and enhanced safety to the other; that it will serve to lighten or to obviate the penalties that may be incurred by the commission of such crimes as adultery, rape, burglary, and murder, it would scarcely seem wise in our present lawgivers to hastily overturn the common law, which has hitherto so justly defined and regulated our duties in this regard, and to substitute in its place a statute

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from which neither our profession nor the honest and virtuous portion of society can derive any advantage, but one whose benefits, if any, could only accrue to the vicious and the criminal classes.

Before the members of the medical profession "put their foot into it," by securing the enactment of such a statute as that of New York, it would be well for them to consider carefully the consequences which must necessarily result to themselves from its adoption. The New York statute, which it is proposed to adopt, is in the following words:

"No person duly authorized to practise physic or surgery *shall be allowed* to disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon."

It will be readily seen that this law effectually prevents a physician from giving testimony in his own behalf in suits that may be instituted against himself for malpractice, as well as in suits which he may bring against delinquent patients to recover just payment for his services: and he frequently can have no other evidence by which he can establish the justice of his cause. In illustration of this point, I will briefly relate a case which recently occurred in my own practice. A resident of New York, temporarily in this city, fell or was thrown from a wagon, causing a fracture of both tibia and fibula of right leg at upper portion of lower third. On being called to attend him I made particular inquiry as to his occupation, his habits, and his previous health. I was told by him that he was an agent, that he was temperate, and that he had always been healthy. He especially disclaimed having ever had any specific disease. I adjusted his limb, secured its position by the necessary appliances, and bestowed upon him all requisite attention and care during the next forty days. At the end of that time, on removing the dressing from his limb, I was surprised and disappointed at finding that while the length and shape of the injured limb were all that could be desired, no bony union had taken place. Feeling confident as to the cause of this condition of his limb, I at once charged him with having deceived and misled me in regard to his previous health, and he promptly admitted having had syphilis a year or two previously. Upon further investigation I found conclusive evidence of the correctness of his confession. The reason which he assigned for concealing the truth, was that he supposed himself cured, and did not think it necessary to disclose to me at the time of the accident any knowledge concerning it. This was confided to me as a professional secret, and I could not prove by any testimony, save my own, that such an admission had been made by him, and I suppose that it would be utterly impossible for me to establish by any other evidence the fact which he privately admitted to me, and "*which information was necessary to enable him* [me] *to prescribe for such patient*" at that juncture of his case. As he was anxious to return to his home, I prescribed the standard anti-syphilitic remedies, encased his leg in plaster of Paris, and left him to go on his way, since which time I have heard nothing from him.

Now, supposing—just what has many times occurred to others—that I should be required to respond to a suit for damages for failing to procure the usual bony union in this man's broken leg (and as the fellow left without paying me a dime for my services, he may yet, in accordance with established precedent, attempt to compensate me by such a procedure), then this much lauded New York statute, if operative in Pennsylvania, would effectually debar me from making a successful defence or of establishing before a court the facts that would be necessary to a proper understanding of the case. One of those conscienceless shysters who especially exult in the winning of an unjust cause, with this New York statute before him and in force, would find in the facts which I have stated, all the necessary materials for a promising suit for malpractice. A professional friend and fellow-townsman, and one of the most worthy and competent surgeons of our State, is now a defendant in a suit for civil malpractice. The situation is such that he will be compelled to depend largely on his own testimony for his defence. This New York statute would effectually close his mouth, and leave him an easy victim to his prosecutors.

As to the ethical obligations of physicians to their patients, I believe that this has generally been observed to as great a degree as either good morals or sound policy would dictate, and that these had better be left, as in the past, to the moral sense and honorable instincts of the members of the healing art—leaving each one to judge for himself in every case just what are his duties to his patient, and what are his obligations to the State.

The better elements of society would in no wise be benefited by the enactment of the proposed measure; our profession would gain nothing in dignity, character, nor honor, and might lose much in reputation and purse; and the only advantages resulting from it will accrue to the devotees of vice, the perpetrators of crime, and the promoters of suits against medical men for civil malpractice. These interests deserve no additional protection, and society can illy afford to invest them with any additional safety and strength.

Against the adoption of a measure so detrimental to the better interests of society, and so fraught with injury to the medical profession, I desire to enter my sincere and earnest protest.

Very truly yours,

JOHN B. CRAWFORD, M.D.

WILKES BARRE, January 22, 1883.

NEWS ITEMS.

BOSTON.

(*From our Special Correspondent.*)

THE CHILDREN'S HOSPITAL.—The Children's Hospital, now in its fourteenth year, has just moved into a new and handsome building, erected for the purpose at a cost of about $40,000. Heretofore the hospital has occupied a large dwelling-house, which latterly became too contracted for the needs of the institution.

To Dr. Francis H. Brown, of Boston, is due the foundation and organization of this charity. He was greatly assisted by the influential aid of the late Dr. Chandler Robbins, whose eloquence opened the purses of the wealthy men of Boston, and to this fact is due the large meed of praise given to Dr. Robbins. But it is undoubtedly true that the plans and ideas gathered by Dr. Brown while in Europe were the seed-germs of this hospital. And he is still not only actively engaged in its development, but, as Secretary of the Board of Management, he has been untiring in perfecting the arrangements and suggesting many of the conveniences of the new building. It stands on the new land (Back Bay) at the corner of Huntington Avenue and Camden Street. It is a sightly structure of brick, composed of centre building with wings, only one of which is as yet completed. Out of the large entrance hall intersecting passages lead right and left to the wings, which are two-story pavilion wards; the lower story in the completed wing is occupied by the boys. Walls are tinted, hung with pictures. Tables in the centre are used for the children's books and toys. The little fellows have an adjoining dining-room supplied with

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low tables and chairs. Beds are of iron, of convenient pattern. Floor of hard wood. Abundance of sun and light make the ward as cheery as out-of-doors. At one end is a section called the "sun-room," into which sunlight pours all days. The floor is underlaid with steam-pipe. Heat and ventilation are admirably managed, and so arranged that fresh air will enter from either side, according to the direction from which the wind is blowing. This is controlled by means of valves.

Bath-rooms have marble floors. All plumbing and piping are open throughout the house. An excellent idea. The building is finished interiorly in ash. The girls' ward is directly over the boys' room, and corresponds in all ways. On the lower floor and in basement of the central building is a fine operating-room; roomy dispensary; an ether-room, where patients are prepared for operations; an accident-room; a plaster-room, where casts are made and plaster jackets applied; a splint-room, in which the surgeons may modify and invent apparatus, a smith being employed and all tools at hand; also laundry, kitchen, and sitting-room for the sisters who act as nurses. In each ward dining-room is a medical closet for the ward. There are also diet and ward kitchens. Nothing in the way of convenience has been forgotten.

On the second and third stories of the central building are handsomely furnished rooms, to be used privately for mothers who may wish to come with sick children and pay board. One floor is devoted to contagious diseases. It is completely shut off from the rest of the house, and can be reached from without the house by a passage which protects the hospital from all possible exposure. The walls of the whole house have four coats of hard paint and one of varnish. The whole is as perfect as modern science can make it, and may justly be regarded with pride.

HOSPITAL FOR INCURABLES.—A new institution has recently been inaugurated—a hospital for incurables, under the charge of Dr. Hamilton Osgood. This supplies a want which has been bitterly felt. In Boston incurables are not admitted to the large hospitals. Until now there has been almost no refuge for the incurable among the poor, and what to do with them has been a painful difficulty. The response to an appeal for funds towards this object has been quick and generous. The hospital is located in one of the suburbs, a few minutes' drive from the city, in a sunny and healthful spot, and at present occupies a large and handsome cottage, capable of accommodating twenty-five patients. This is a nucleus of what undoubtedly will become a large institution, for incurables are many. Every city requires a similar home for such of its poor incurables as could not, with propriety, be sent to an almshouse.

CHAIR OF ANATOMY AT HARVARD.—Dr. Thomas Dwight is giving satisfaction as a substitute for Dr. Holmes, during the remainder of the current year, at Harvard Medical School. One can easily imagine the difficulty of sustaining this position when suddenly called to it without sufficient preparation in the way of models, plates, etc., especially in the middle of a term.

CHICAGO.

(*From our Special Correspondent.*)

THE NEW COLLEGE OF PHYSICIANS AND SURGEONS has become involved in a singular, probably unparalleled lawsuit. Three students who had attended the last spring course at the Rush Medical College, entered this winter at the new College with the hope of graduating at the end of the term. This hope was based, as they allege, upon a definite promise on the part of Prof. A. Reeves Jackson, with the approval of Drs. Rea and Carpenter, that they should be admitted as senior students, and entitled to the final examinations at the end of the term, although they had only studied one spring term at another institution. At any rate the students are in possession of matriculation tickets admitting them to the senior class. Prof. Jackson admitted that he had given the promise to let them apply for graduation at the end of the term, but had done so without full knowledge of all the facts. The Faculty, however, concluded to abide by the rules of the State Board of Health, and refused to admit to the final examination any student who had not taken two full courses of lectures in some medical college. They hence offered these students to refund their fees. The latter, however, refused to accept them and have sought redress in the courts. One of them, M. I. Hendrix, has begun a test-case, in which he sues the Faculty for $5,000 damages for violation of contract.

CANADA.

(*From our Special Correspondent.*)

PUBLIC HEALTH.—The Dominion Government has acted upon the resolutions presented by the Convention, held a few months ago in Ottawa, and organized a system for the collection of vital statistics in the principal cities.

BODY-SNATCHING IN MONTREAL.—As previously mentioned in THE NEWS, a considerable proportion of the subjects supplied to the medical schools here are "raised." The practice has prevailed this winter to a greater extent than usual, owing to the larger number of medical students in the city and the high price paid for subjects by the demonstrators, in some cases as much as $30 apiece. Not a week passes without reports from the small towns and villages that the vaults have been broken and the bodies stolen. In some instances the relatives, with the aid of a detective, are able to recover the corpses, but in the majority of the cases they are hidden away and not put on the tables until the search is over. Public opinion is aroused and the matter is again before the legislature, but nothing will be done to remedy matters until the various asylums and poor-houses receiving government aid are compelled to send the unclaimed dead to the colleges.

LONDON.

(*From our Special Correspondent.*)

THE LONDON MEDICAL SOCIETIES.—The Christmas vacation is over, the medical schools have reassembled, and the various medical societies are hard at work again. The Pathological and Clinical Societies have recently held their annual meetings for the election of officers and other formal business. In these societies, as in the older Medical and Chirurgical Society, the chairman holds office for two years, and a physician and surgeon are elected alternately. The late President of the Pathological Society—the most largely attended of all—was Dr. S. Wilks, Senior Physician to Guy's Hospital. He is, of course, well known in America as the author of a *Handbook on Pathology*. He has long been a most arduous worker in this field of inquiry, and was one of those to establish beyond question the existence of visceral syphilis. The new President is Mr. J. W. Hulke, Senior Surgeon of the Middlesex Hospital, and Surgeon to the Moorfield's Ophthalmic Hospital. He is a very worthy successor to Dr. Wilks, for although not so widely known as many others, there is no man more thoroughly well informed on all the scientific branches of the profession than he. The Clinical Society has been presided over for the last two years by Prof. Lister. When he was elected he was a comparatively new member of

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the Society, and had not attended its meetings, and some disappointment was felt and expressed by some who had served the Society from its foundation at having been passed over. Indeed, Mr. Lister's election has caused some two or three old members to absent themselves from the meetings for the past two years. But in spite of that, Mr. Lister's presidency has been a very successful one, and there can be no doubt that it has reflected far more honor upon the Society than upon himself. The Clinical Society is the youngest of our London societies, and its action in thus seeking out its most distinguished member to be its President, irrespective of the date of his membership, is a sign of its healthy life. The fact, moreover, is an indication of the honor in which Mr. Lister is held by the younger members of the profession, while among his seniors there is a tardiness in accepting his antiseptic treatment of wounds. Dr. Andrew Clark, of the London Hospital, a physician in large practice, who attends Mr. Gladstone, and is one of our medical orators, is the newly elected President of this Society.

AT THE MEETING OF THE CLINICAL SOCIETY ON JANUARY 12TH, DR. COXWELL exhibited a child, aged thirteen, with symptoms resembling those of *Myxœdema*. Until eight years of age she differed in no way from other children, and could read a chapter out of the Bible or a story as well as her mother; could write, and learnt arithmetic. A great change then came over her. She would often fall asleep, even when eating her meals, her memory became defective, and if sent to do anything she would wander about in an aimless fashion. Later her speech became thick and indistinct; she suffered from headache, her head drooped forward on her chest; her hands and feet became very cold; her legs became weak and her gait unsteady. She was lately a patient in the National Hospital for the Paralyzed and Epileptic, under the care of Dr. Hughlings Jackson. The appearance of her face is very suggestive of myxœdema, her skin being translucent, with a circumscribed patch of redness in the centre of the cheeks, the lower eyelids swollen, the nose broad, the eyes prominent and heavy looking, The limbs are slender and well formed. The thyroid gland seems diminished, and there are no abnormal fatty tumors in the region of the neck or elsewhere. While under observation her temperature was frequently as low as 95.6°. She was often extremely restless at night, and had frequent attacks of screaming. Her power of speech became worse, till at last she could hardly utter a single sound, the lips being seen to move ineffectually when she attempted to do so. She could not kiss her mother nor puff out her cheeks, and her food would often remain seven or eight minutes between her teeth and lips. There was a general overclouding of the intellect. Dr. Coxwell drew attention to the fact that very pronounced mental disease has been reported in myxœdema, and that Dr. Ord has had a patient suffering from that disease with marked affection of the bulb, a point of similarity with the present case of some importance. If the case was one of myxœdema, it was of interest as being the first recorded in a child. If it was one of simple imbecility, it was remarkable on account of the bulbous symptoms and the likeness it bore to myxœdema. The arguments in favor of sporadic cretinism were few, and outbalanced by the absence of most of the characteristics of that disease.

MR. J. N. C. DAVIES-COLLEY read notes of a case of *Enormous Enlargement of the Lower Lip Cured by Operation*. Richard B. D., a clerk, aged 36, was admitted into Guy's Hospital in August, 1881, with a remarkable swelling of the lower lip. Fourteen years before he had a chancre on the penis, followed by soreness of the tongue and swelling of both lips, especially the lower. There was never any rash on the skin. He was a very great drinker. The lower lip was of enormous size, everted, and pendent, so that its border was on a level with the tip of the chin, while the lower teeth were in front completely exposed to view. The mucous membrane was fissured in parts, but otherwise natural. The tissues were a little firmer than usual, but not at all indurated. There was a little tenderness on pressure. From side to side it measured 3 inches, from above downwards 1¼, and in thickness ⅞ of an inch. The upper lip and tongue showed signs of chronic inflammation. There was no enlargement of the adjacent glands. He left off smoking, and was at first treated with antisyphilitic remedies. The mucous membrane became more healthy, but the lip remained the same size. Some reduction was then effected by pressure between thin strips of wood. The lip became smaller and flaccid, but was still morbid and pendent. On November 8th a V-shaped piece was removed from the centre of the swollen lip, and a rapid recovery ensued. When last seen he had no longer any eversion of the lip, which had assumed a perfectly healthy and normal aspect. Mr. Davies-Colley brought the case forward as a striking example of the enlargement of the lip which occasionally results from chronic inflammation. There was nothing in the patient's family history to indicate a scrofulous tendency. The evidence of secondary syphilis was doubtful, and there was no record of mercurial salivation. On the whole, Mr. Davies-Colley was disposed to attribute the disease primarily to syphilis, and secondarily to the constant irritation of the inflamed surface by excessive smoking. The case was also interesting on account of the success which followed excision of part of the lip, after the more or less complete failure of other remedial measures.

MR. CLEMENT LUCAS had seen this case, and bore testimony to the excellent result obtained. He thought that any chronic ulceration might produce such hypertrophy, as was seen in struma. But he suggested that the internal use of mercury might have had some effect in its causation.

DR. HADDEN said the case appeared to resemble cases of lymphatic obstruction of the tongue described by German authors—the microscopical characters bore out that view.

MR. LISTER remarked on the fact that removal of a portion of such chronically indurated tissue is often followed by recovery of what is left behind, and instanced what is seen in operating on lipoma nasi, and hypertrophied tonsils.

MR. DAVIES-COLLEY thought that the tension of the parts and the correction of their pendulent position explained the recovery of the unexcised portions of the lip. There were no enlarged glands, or any other direct evidence of lymphatic obstruction.

MR. H. GOLDING-BIRD then read a paper on a *Successful Case of Transpatellar Excision of the Knee*, which he had previously shown to the Society.

The operation was on the person of a lad, æt. 13, fairly healthy himself, but with a family history of phthisis. There was a year's history of articular ostitis of the right knee, with pulpy disease. Excision was eventually performed on May 9, 1882. It differed from an ordinary excision in that the transverse incision was made across the middle of the patella, which was then sawn in two; the two fragments, with the soft parts, being bound up and down. The excision was then completed as usual, the articular surfaces of the tibia and femur being removed. Some pulpy thickening was removed from the under side of the patella, and when the limb had been straightened two car-

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bolized silk sutures were passed through its substance, and so its two fragments were united.

Primary union was obtained, and nothing more was seen of the patellar sutures. Until September 12th, he walked about with a stiff bandage at the knee, and with crutches; after that date he was ordered to discard all support. He has a movable patella and half an inch shortening. He has all the advantages of retaining the patella; but besides that, there is a gain by this method of operating, since the surgeon can freely examine and manipulate the joint—more freely, indeed, than where, with the idea of retaining the knee-cap, the lateral incisions are employed. Two great advantages remain to the patient by keeping the normal attachments of the patella. The quadriceps opposes the hamstrings, and so does away with the necessity of employing a stiff bandage for years to prevent posterior displacement of the leg; the rectus femoris, considered as arising below, has its full play upon the trunk in preserving equilibrium, whilst it also allows of the perfectly natural forward motion of the limbs in walking, and this last is not the case where the ligamentum patellæ has been solidified.

MR. GANT thought that when excision of the knee was required, it was rare to find the patella free from disease; his results after removal of the patella had been very good.

MR. CHRISTOPHER HEATH agreed with Mr. Gant, and thought that when the patella remained free from disease it afforded an argument against excision. Mr. Golding-Bird's case was undoubtedly very successful, but it was probably capable of other treatment, and excision at such an age usually interfered seriously with the growth and utility of the limb.

PROF. LISTER said that Volkmann had advocated this operation many years before. In cases without sinuses he should think it good, if the operations were conducted aseptically; but if he thought only of the old method of conducting the operation, he should agree with Mr. Gant and Mr. Heath. He had had many successful results in cases like Mr. Golding-Bird's from free antiseptic incision into the joint, with gouging out of carious bone, and scraping away of diseased synovial membrane; getting even movable joints.

THE COLLECTIVE INVESTIGATION COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.—An attempt is being made in this country by the British Medical Association to obtain information on the etiology, natural history, and treatment of disease, from the large body of practitioners scattered over the country. With this object, a committee for the collective investigation of disease has been formed, and Dr. Mahomed has been appointed secretary. The committee has just issued a letter asking for reliable information bearing on the contagious nature of phthisis. A meeting is to be held in London this week, at which Sir James Paget and Sir William Gull are announced to speak on this subject. Those who have been engaged in general family practice will appreciate the extreme difficulty there is in obtaining from it reliable scientific data. It is also well known that while in "union is strength," in "numbers is weakness." Each fresh observer introduces new possible sources of error in observation; and in an investigation undertaken by hundreds, it is impossible that the sense of individual responsibility should not be seriously diminished. The greatest possible care will be necessary on the part of the committee in analyzing the reports they receive, and in estimating their value.

THE NEW SURGEON-GENERAL OF MAINE.—DR. AUGUSTUS C. HAMLIN, of Bangor, Me., who has lately been appointed surgeon-general of Maine, on the staff of Governor Robie, is one of the prominent physicians of New England. He served in the army during the entire war, being intrusted with many important commands. He was afterwards promoted to be medical director in the regular army and in the army of West Virginia.

THE HAMMOND PRIZE.—The American Neurological Association offers a prize of $500, to be known as the "Wm. A. Hammond Prize," and to be awarded at the meeting in June, 1884, to the author of the best essay on the *Functions of the Thalamus in Man*.

The prize is open to competitors of all nationalities. Essays are to be sent to Dr. E. C. Seguin, 41 W. 20th Street, New York, on or before February 1, 1884.

DR. BILLINGS will deliver a lecture this evening on "Germs and Epidemics," in the Free Saturday Lecture Course, under the auspices of the Biological and Anthropological Society of Washington, D. C.

THE second session of the German "*Kongress für innere Medicin*" will be held in Wiesbaden, from April 17 to 20, under the presidency of Prof. Frerichs.

ABSENCE OF SPLEEN.—PROF. SCHENTHAUER, according to the *Medical Times and Gazette*, recently found at an autopsy of a woman aged seventy that no spleen existed. The organ had not been destroyed by disease, but was congenitally absent.

SMALLPOX STATISTICS FROM PITTSBURG, PA.—From the annual report of the Registrar of Pittsburg, Pa., for 1882, we extract the following figures concerning smallpox. During the year there were 1136 cases, 300 of which proved fatal. Of the 300 deaths, 235 occurred during the first or winter quarter, 46 during the second quarter, 3 during the third, and 16 during the fourth quarter.

In the municipal hospital, 313 cases were treated. Of these 124 were of unvaccinated persons, and 189 of those who had been previously vaccinated; of the latter 26 died, equal to 13.76 per cent.; of the former 61 died, equal to 49.19 per cent.; of the 26 post-vaccinal deaths 17 or 65.4 per cent. exhibited one vaccine scar, 6 or 23.1 per cent. exhibited two scars, and 3 or 11.5 per cent. showed three scars. The ages of those who died from smallpox after vaccination were: from 15 to 20 years, 2 persons; from 20 to 30 years, 10; from 30 to 40, 8; and from 40 to 50, 6 persons,

WINTER CHOLERA.—The disease to which this significant name has been applied appears to be coming into notice at the present time. In the health bulletins for the week ending January 27, we meet with it in two large sections of the country. The Michigan report states that one of the health officers reports "many cases of winter cholera, which comes on very suddenly and is severe;" and Dr. Bryce, Secretary of the Ontario Board of Health, speaks of it as follows: "Among the peculiar features of this extremely cold week, is the fact that in District IV., whence are reported over seven hundred cases of disease, diarrhœa not only becomes one of the six most prevalent diseases, but it amounts to five per cent. of all the diseases reported. Extreme cold as well as extreme heat would seem to have the same tendency; but while we must suppose that the former acts by producing internal congestions, the latter induces the disorder by the irritative effects of fermentative changes."

250 cases are reported at Waterbury, Conn., and the disease is thought to be due to the snow-water in the city reservoirs.

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THE HOMŒOPATHS AND THE NEW YORK CODE.—At the annual meeting of the Homœopathic Medical Society of the State of New York, held at Albany last Tuesday, the President, Dr. John J. Mitchell, delivered an address which is interesting reading just now, and from it we make the following extracts:

"We had thought the battle for Homœopathy won. We were content, perfectly. Our schools were increasing, and our numbers never so large. Hospitals, dispensaries, and insane asylums were coming under our control in numbers rather greater than our professional corps could thoroughly man. As to success in our practice, we had presented statistics until we are tired, all demonstrating to the unprejudiced student that in the great mass of curable diseases our mortality was scarcely one-half that of our professional brethren of the 'Regular' school. The wealth and intelligence of the land saw our success, and to a wonderful extent had become our patrons. Necessity had produced us specialists in almost every department of medical science; and as to consultations, we were in the state of the milkmaid in the nursery rhyme, who replied:

"'Nobody asked you, sir!' she said."

. . . . . .

"But amid all this prosperity and peace, without our knowledge, and certainly not in obedience to any request of ours, a clause was incorporated in the Code of Ethics of the Medical Society of the State of New York to the effect that 'Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine.' . . . .

"This change of position met the hearty approval of the public, and the members of the Society were applauded for the noble, consistent position they had assumed.

"We, as homœopathists, were of course pleased that our 'regular' brethren had finally taken their stand upon the platform of freedom of medical action, upon which we had been for nearly a score of years. . . . .

"In regard to the resolution offered by the 'regulars' last year, we would state we did not directly or indirectly ask any such action. The resolution having been adopted, we hailed it as a good omen. Not that we thought the 'regulars' were becoming homœopaths, but that war might cease. We knew that we could do them good in the department of the practice of medicine to which for half a century we had specially devoted ourselves. And then they could be of service to us in the various departments of surgery, pathology, hygiene, and climatology, which we had more or less delegated to them. Any response on our part was not necessary, for they were merely coming to the position that we had occupied for a score of years. . . . .

"We are then to continue as a school of medicine, distinctively liberal in its character, ever holding out hands of welcome to any one educated to the level we have fixed; yes, refusing no one, provided he be lawfully educated as a physician, and honorable and true. . . . .

"In the triumph of the cause I advocate to-night all party lines shall be broken. Then the banners of the 'Eclectics,' of the 'Regulars,' and of the 'Homœopathists,' shall be lowered, in order that—the party watchwords having been erased—the noble legend of 'Scientific Medicine' may be emblazoned thereupon."

ADDITIONAL FRUITS OF THE NEW CODE.—A bill was introduced in the New York Assembly, last week, by Mr. Quinn, which provides that the right of every citizen and of the people to employ for medical purposes the services of any individual in whom he or she may have confidence, whether such employé has or has not a medical diploma, or has or has not registered as a physician, shall not be questioned in the State of New York. No such employé shall be liable to fine or imprisonment for rendering such service, where guiltless of any false representation in connection therewith, provided that nothing in this Act shall be so construed at to exempt from liability any such employé on account of damage resulting from malpractice, misconduct, or intoxication, either at common law or in pursuance of any statutory provision of this State.

PORRO'S OPERATION.—PROF. CARL BRAUN has performed Porro's operation in Vienna nine times. In eight cases the pedicles were treated by the extra-peritoneal method, and five recoveries were recorded. These five women are living now in Vienna, and are exhibited annually at the clinic. The ligatures in Prof. Braun's last case were of strong silk, prepared antiseptically, and were most carefully applied.—*Brit. Med. Journal*, January 6, 1883.

At a late meeting of the Obstetrical Society of London, DR. HEYWOOD SMITH exhibited a uterus removed by Porro's operation. The patient was aged twenty, the conjugate diameter of whose pelvis was an inch and three-quarters or less. She had been in labor two days, and attempts at delivery by craniotomy and cephalotripsy had been made without success. The performance of Porro's operation occupied nearly an hour. The specimen showed clearly the rugæ on its peritoneal surface.

The case died on the fourth day. The wound had perfectly healed, there was scarcely any trace of peritonitis, there was no fluid in the peritoneal cavity, and the tongue remained clean and moist to the last. There was, however, some incipient sloughing of the vagina, which he considered due partly to the length of time the patient was allowed to be in labor, and partly to the attempt, though it was not prolonged, at extraction with instruments in a case that was enfeebled by struma.

REVERSED HEREDITY.—Mlle. Bernard, the daughter of Claude Bernard, has just been fined one franc by the police tribunal of Boulogne-sur-Seine, on complaint of her neighbors, for converting her entire courtyard, garden, parlor, and even her bed-room, into an immense kennel for the care of destitute dogs. She felt that some reparation was due the canine race for the miseries inflicted on it by her father's vivisections.—*Revue de Thérap.*, November 1, 1882.

HEALTH OF PROF. OWEN.—*The Lancet* states that the health of PROF. OWEN is such as to cause great anxiety to his many friends.

GERMAN MALEVOLENCE.—The feeling in France towards Germany is well expressed by the following note published under the above caption in the *Journal Médicale de Paris* for November 4, 1882: "The celebrated German surgeon, Esmarch, the same who, by marrying a Princess of Schleswig-Holstein, became the uncle by marriage of the grandson of the Emperor William, has just published a brochure in which he attributes the death of the late President Garfield solely to the irrational treatment to which he was subjected by his physicians. The ball fired by Guiteau struck no essentially mortal organ, and the unjustifiable attempts to extract the ball, the employment of insufficiently and obsolete antiseptic dressings caused such a degree of prostration that a slight hemorrhage was sufficient to cause death.

"The account which we published of the autopsy of the unfortunate President shows that the views of Esmarch are as malevolent as erroneous. It seems useless to us to defend our American *confrères* who

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showed under such circumstances as much practical science as professional devotion."

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending February 3, 1883, indicate that intermittent fever, measles, and rheumatism have increased, and that diphtheria, tonsillitis, and diarrhœa have decreased in area of prevalence.

Compared with the average for the month of January in the preceding six years, neuralgia, tonsillitis, and measles were more prevalent, and remittent fever, whooping-cough, and diphtheria, less prevalent during the month of January, 1883.

Including reports by regular observers and by others, diphtheria was reported present during the week ending February 3, and since, at 19 places, scarlet fever at 18 places, and measles at 17 places. Smallpox was reported at St. Joseph, Berrien County, February 3.

NOTES AND QUERIES.

PAY THE DOCTOR'S BILLS.

ON a blank account for professional services rendered, we find the following printed on the margin:

"Tres medicas facies habet; unam quando ragatur,
Angelicam; mox est, cum juvat, ipse Deus.
Post ubi curato, poscit sua præmia, morbo,
Horridus apparet, terribilisque Sathan."

Enricus Cordus.

"Three faces wears the doctor; when first sought,
An angel's—and a God's, the cure half wrought;
But, when that cure complete he seeks his fee,
Satan vile looks then less terrible than he."

THE DOCTOR'S DREAM.

AM sitting alone, by the surgery fire, with my pipe alight, now the day is done:
The village is quiet, the wife's asleep, the child is hush'd, and the clock strikes One!
And I think to myself, as I read THE NEWS, and bless my life for the peace upstairs,
That the burden's sore for the best of men, but few can dream what a Doctor bears;
For here I sit at the close of a day, whilst others have counted their profit and gain,
And I've tried as much as a man can do, in my humble manner, to soften pain:
I've warned them all, in a learned way, of careful diet, and talked of tone.
And when I have preached of regular meals, I've scarcely had time to swallow my own.
I was waked last night in my first long sleep, when I crawled to bed from my rounds dead beat.
"Ah, the Doctor's called!" and they turned and snored, as my trap went rattling down the street!

I sowed my oats, pretty wild they were, in the regular manner when life was free,
For a Medical Student isn't a Saint, any more than your orthodox Pharisee!
I suppose I did what others have done, since the whirligig round of folly began,
And the ignorant pleasures I loved as a boy—I have pretty well cursed since I came to be man.
But still I recall through the mist of years and through the portals of memory steal
The kindly voice of a dear old man who talked to us lads of the men who heal,
Of the splendid mission in life for those who study the science that comes from God,
Who buckle the armor of Nature on, who bare their breast and who kiss the rod.
So the boy disappeared in the faith of the man, and the oats were sowed, but I never forgot
There were few better things in the world to do than to lose all self in the Doctor's lot.
So I left the life that had seemed so dear, to earn a crust that isn't so cheap,
And I bought a share of a practice here, to win my way, and to lose my sleep;
To be day and night at the beck and call of men who ail, and women who lie;
To know how often the rascals live, and see with sorrow the dear ones die;
To be laughed to scorn as a man who fails, when Nature pays her terrible debt;
To give a mother her first-born's smile, and leave the eyes of the husband wet;
To face and brave the gossip and stuff that travels about through a country town;
To be thrown in the way of hysterical girls, and live all terrible scandals down;
To study at night in the papers here of new disease and of human ills;
To work like a slave for a weary year, and then to be cursed when I sent my bills!

Upon my honor, we're not too hard on those who cannot afford to pay,
For nothing I've cured the widow and child: for nothing I've watched till the night turned day;
I've earned the prayers of the poor, thank God, and I've borne the sneers of the pampered beast,
I've heard confessions and kept them safe as a sacred trust like a righteous priest.
To do my duty I never have sworn, as others must do in this world of woe,
But I've driven away to the bed of pain, through days of rain and through nights of snow.

. . . . . .

As here I sit and I smoke my pipe, when the day is done and the wife's asleep,
I think of that brother-in-arms who's gone, and utter—well, something loud and deep!
And I read THE NEWS and I fling it down, and I fancy I hear in the night that scream
Of a woman who's crying for vengeance! Hark! No, the house is still! It's a Doctor's Dream! [*Punch*, Jan. 20, '83.]

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 5 TO FEBRUARY 12, 1883.

TOWN, FRANCIS L., *Major and Surgeon.*—Is relieved from duty at Fort Walla Walla, and will report to the commanding officer, Vancouver Barracks, for duty as Post Surgeon.—*S. O. 7, Department of the Columbia, January 27*, 1883.

WOODWARD, J. J., *Major and Surgeon.*—The extension of leave of absence on account of sickness granted October 6, 1882, is further extended six months on account of sickness.—*Par. 9, S. O. 34, A. G. O., February 9*, 1883.

DE LOFFRE, AUGUSTUS A., *Captain and Assistant Surgeon.*—Relieved from further duty in this Department.—*S. O. 28, Department of the Missouri, February 5*, 1883.

TAYLOR, MARCUS E., *Captain and Assistant Surgeon.*—So much of S. O. 20, A. G. O., January 24, 1883, as directs him to report in person to the commanding general, Department of the East, is amended to direct him to report in person to the commanding officer, David's Island, New York Harbor, for duty at that station.—*Par. 2, S. O. 33, A. G. O., February 8*, 1883.

TAYLOR, B. D., *Captain and Assistant Surgeon.*—Granted leave of absence for one month, on surgeon's certificate of disability.—*Par. 2, S. O. 13, Department of Texas, Feb. 1*, 1883.

NEWTON, R. C., *First Lieutenant and Assistant Surgeon.*—Is relieved from duty at Fort Cummings, New Mexico, and will proceed to Fort Sill, Indian Territory, and report to the commanding officer for duty.—*S. O. 28, Department of the Missouri, February 5*, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, FEBRUARY 24, 1883. NO. 8.

ORIGINAL LECTURES.

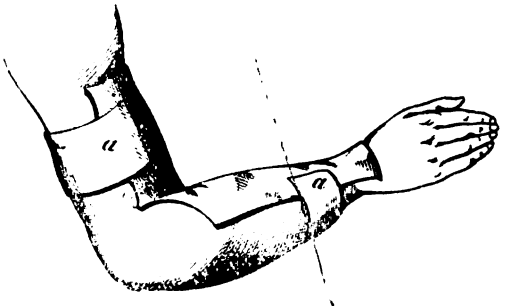
PLASTER-OF-PARIS DRESSING IN INJURY TO THE ELBOW-JOINT.

Abstract of a Clinical Lecture delivered

BY PROF. JAMES L. LITTLE, M.D.,

IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.

GENTLEMEN: The patient that I now show you is a boy of about ten years of age, brought here by Dr. Griswold, of this city. He sustained an injury to his elbow, which has resulted in an inflammation of the joint of a subacute character. Dr. Griswold tells me that when he saw the case, some four weeks ago, he detected marked fluctuation upon the outer side of the joint. With the aspirator he removed about two ounces of pus. Probably you remember that I presented this case to you a week ago. I then detected fluctuation over the seat of the former abscess, and naturally concluded that it was refilling. At that time, as you will remember, I applied a plaster-of-Paris splint to the arm and forearm without altering its position, the idea being to keep the joint at rest. I told you that I would come to-day prepared to anæsthetize the patient and bring his arm into a flexed position, a little less than a right angle, so that if anchylosis resulted the limb would be in a good position for use. It was also my intention, as I told you at that time, to open the abscess, make a thorough examination, under strict antiseptic precautions, and ascertain whether the abscess was connected with the joint, introducing a drainage-tube, if necessary, and dressing the part according to Lister. But you see that the general condition of the patient is very much improved. Upon examination I find that the swelling around the elbow has entirely disappeared, so that no fluctuation can now be detected. No operative interference, therefore, will be necessary, so far as the abscess is concerned. I wish, however, to put the arm in such a position that, should the joint become stiffened, the limb will be of some service to the patient. To this end the boy has been thoroughly anæsthetized, and I now forcibly flex the arm to a little less than a right angle, so that the hand touches the mouth. While the limb is held in this position I apply a plaster-of-Paris splint to the anterior portion of the arm and forearm. This, as you will see, is made of two thicknesses of bleached canton flannel, wide enough to enclose about one-half of the circumference of the limb. The flannel is thoroughly saturated in a mixture of plaster of Paris and water. A strip of the same material, about an inch and a half in width, saturated in the plaster of Paris, is applied around the arm, just below the upper extremity of the splint, and another similar band above the wrist, to retain the anterior splint in position. While the plaster is still wet, and with the arm held in the desired position by my assistant, Dr. Powell, I apply an ordinary roller bandage tightly from the hand to the shoulder, moulding the flannel to the limb. Having accomplished this, the limb is held in the position in which we have placed it until the plaster is set. This takes but a short time. The plaster is now hard, and I remove the bandage, and, as you see, I have a beautiful plaster-of-Paris anterior splint, which is unyielding, and will hold the arm in its present position. At the same time the dorsal surface of the joint, from the external to the internal condyle, is uncovered, so that its condition can be observed from time to time. A dry cotton roller is now applied from the hand to the shoulder, and the dressing is complete, and its appearance is shown in the following figure.



With plaster applied in this way you can make an angular splint to cover any part of the forearm or arm. This dressing has one advantage over all others, inasmuch as after its application the limb can at once be placed in the desired position and held there until the dressing becomes hard. Another advantage is that it can be applied directly to the skin without any irritation resulting. If hairs exist upon the limb, the surface should be smeared with oil or vaseline before applying the splint.

The length of time that I shall allow this dressing to remain upon the patient will depend upon the progress of the case. If the inflammation subsides rapidly, and the pain disappears, it can be removed in a short time and passive motion begun.

ORIGINAL ARTICLES.

A PARTIAL STUDY OF THE POISON OF HELODERMA SUSPECTUM (COPE)—THE GILA MONSTER.

BY S. WEIR MITCHELL, M.D., AND EDWARD T. REICHERT, M.D.,

OF PHILADELPHIA.

(*Read before the College of Physicians of Philadelphia, February 7, 1883.*)

FOR some years past it has been known to naturalists that the Gila lizard of Arizona and Sonora was endowed with anterior deciduous grooved teeth, which communicated by ducts with large glands within the angle of the lower jaw. These arrangements naturally suggested a certain power of poisoning, as to which, however, the most conflicting accounts have reached, and continue to reach us from Arizona. In many houses the sluggish creature shown to you was a pet of children, and seems to have been averse to using his weapons of offence. The occasional accidents from his bite were variously explained away; but still, among the Indians and some settlers, he enjoyed an evil reputation. Only within a week we have had two letters from Arizona, the one describing him as "more peaceful and harmless than a young missionary," and

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showed under such circumstances ... science as professional devotion."

HEALTH IN MICHIGAN.—Report ... of Health, for the week ending Fe... cate that intermittent fever, meas... have increased, and that dipht... diarrhœa have decreased in are...

Compared with the average f... in the preceding six years, ne... measles were more prevalen... whooping-cough, and diphthe... the month of January, 1883.

Including reports by regul... diphtheria was reported pre... ing February 3, and since, ... 18 places, and measles a... reported at St. Joseph, Be...

NEWS. SCIENCE. No. 8.

...g this was considerably reduced, and further ...was assisted by the use of a lead-water wash. ...ys the wound healed kindly, and in all ...leave no scar; all other symptoms ...eatment, beyond the wearing for ...uch of a kid glove as covered ...

...hen was dull and sluggish, ... the venomous serpent after ... wound, but it soon resumed ...pearance, crawling in rather an ...ut its cage.—*American Natural-*

... shown has eaten once since we ... but the Gila monster is said to live ... and to eat daily of like food while in ...

...ggish habits ascribed to Heloderma in ...ave been noticed in our specimen; but it ... from Dr. Shufeldt's accident that, like the ...ally inert Crotalidæ, this creature is capable ...udden, and therefore unexpected, agility in ...ack.

As we shall have sent to us in the spring a number of Helodermas, we shall then be able to complete the study of the poison of these interesting lizards—the only members of the family of lizards as yet known to be poisonous. The subject is, however, too full of interest to delay the publication of our preliminary study, since, as far as it has gone, it is perfectly definite and satisfactory.

The Gila monster inhabits the dry hillsides of Arizona, and is said to reach the length of three feet. The specimen we exhibit is about fourteen inches long, and from war or accident had when he reached us lost all but two of his teeth, and as yet no new ones have taken their places. Without them he would certainly be as harmless as a rattlesnake deprived of his fangs; and as these teeth are very small, and easily removed, their absence may account for some of the instances in which the lizard has bitten and done no grave harm.

Experiments made in the usual vague way, by allowing the lizard to bite animals, are obviously untrustworthy; so that it was thought best to use the saliva in known quantities. The fluid was obtained by provoking the animal to bite on a saucer-edge—which it was most indisposed to do. When once it had seized the saucer it was hard to pull it away, so powerful was the grip of the lizard's jaws. After a moment, a thin fluid like saliva dripped in small quantities from the lower jaw. It was slightly tinted with blood, due to the violence of the bite, and it had a faint and not unpleasantly aromatic odor. The secretion thus collected from the mouth was distinctly alkaline, in contrast to serpent venoms, which are all alike acid.

Experiment I.—About four minims were diluted with one-half cubic centimetre of water, and thrown into the breast muscles of a large, strong pigeon, at

4.23 P.M. In three minutes the pigeon was rocking on its feet, and walking unsteadily. At the same time the respiration became rapid and short, and at the fifth minute feeble. At the sixth minute the bird fell in convulsions, with dilated pupils, and was dead before the end of the seventh minute.

NOTES A...

PAY TH...

ON a blank account for ... the following printed on ...

"Tres medicas faci...
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Post ubi curato...
Horridus appa...

"Three faces w...
An angel's—...
But, when t...
Satan vile ...

...Ad
...ran,
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...r estimate
...d he speaks
...ie lizard was
...thsonian by A.
...pectum of Cope.

AM sitting at ... dressing to ...
the day is ... progress ...
The village is ... spidly, and ...
clock st... short time ...
And I think ...
the p...
That D...

...ny of Professor Gill ... examined for the first ...
...Ogical ... in a cage in the herpe- ...
handled it ... ital health, and at first I ... olding it in my left hand, ...
examining ... h my right. A the close of ...
this examina... about to return the fellow to ...
his temporary ..., when my left hand slipped ...
slightly, and th... highly indignant and irritated ...
Heloderma mac... art forward and seized my right ...
thumb in his mout... inflicting a severe lacerated wound, sinking the teeth in his upper maxilla to the very bone. He loosed his hold immediately and I replaced him in his cage, with far greater haste, perhaps, than I removed him from it.

By suction with my mouth, I drew not a little blood from the wound, but the bleeding soon ceased entirely, to be followed in a few moments by very severe shooting pains up my arm and down the corresponding side. The severity of these pains was so unexpected that, added to the nervous shock already experienced, no doubt, and a rapid swelling of the parts that now set in, caused me to become so faint as to fall, and Dr. Gill's study was reached with no little difficulty. The action of the skin was greatly increased, and the perspiration flowed profusely. A small quantity of whiskey was administered. This is about a fair statement of the immediate symptoms; the same night the pain allowed of no rest, although the hand was kept in ice and laudanum: but the swelling was confined to this member alone, not passing beyond the wrist. Next

[1] Am. Naturalist, November, 1882.

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The first contrast to the effects of venom was shown when the wound made by the hypodermic needle was examined. There was not the least trace of local action, such as is so characteristic of the bite of serpents, and especially of the Crotalidæ.

The muscles and nerves responded perfectly to weak induced currents, and to mechanical stimuli.

The heart was arrested in the fullest diastole, and was full of firm black clots. The intestines looked congested. The spine was not examined.

Experiment II.—In the following experiment a full-grown etherized rabbit was used, and the left carotid being connected with the Kymographion, one-sixth of a grain of dry Heloderma venom dissolved in one cc. of distilled water, was injected into the external jugular vein.

Action on the Arterial Pressure.

	Time. min. sec.	Pressure. mm.	Remarks.
Normal,		110	
Injection,	.0		
	.3	100	
	.5	80	
	.10	60	
	.15	70	
	.20	66	
	.30	50	
	1.	50	
	2.	44	
	3.	32	
	4.	26	
	5.	20	
	8.30		
	10.		
	10.30		
	11.10		
	11.30		Convulsive movements.
	12.		
	12.30		The pressure gradually declining to 7 mm., when the animal expired.
	14.30		
	15.		
	16.		
	17.		
	18.		
	19. Death.		

Action on the Pulse.

	Time. min. sec.	Pulse. in 10 sec.	Pulse Curves. mm.	Remarks.
Normal,		57	.7	
Injection,	.0			
	.15	57	1.0	
	.30	54	1.2	
	1.	51	1.0	
	2.	53	.8	
	3.	56	.7	
	4.	61	.6	
	5.	61	.5	
	8.30	56	.4	Convulsive movements.
	10.	47	.5	
	10.30	27	1.6	
	11.10	31	1.0	
	11.30	19	1.2	
	12.00	22	.8	
	12.30	28	.3	
	14.30	63	.2	
	15.	58	.3	
	16.	63	.2	Convulsive movements.
	17.			Too feeble to count.
	18.			
	19. Death.			

Experiment III.—The following experiment was made on a full-grown rabbit in which the pneumogastric nerves were cut, and in which the same dose and method of injection were used; the object being to determine if the above neryes were in any way connected with the changes in the circulation observed in the preceding experiments.

Action on the Arterial Pressure.

	Time. min. sec.	Pressure. mm.	Remarks.
Normal,		80	
Injection,	.0		
	.8	66	
	.15	52	
	.30	56	Convulsive movements.
	.40	60	" "
	.50	42	" " stopped.
	1.	34	
	.10	28	" "
	.30	24	" "
	.35	30	Violent convulsions, followed by death in 30 seconds. During these convulsions the canula became detached from the artery.
Death in 1 min. 35 sec.			

Action on the Pulse.

	Time. min. sec.	Pulse. in 10 sec.	Pulse Curve. mm.	Remarks.
Normal,		46	.6	During the last half of the first minute, and after, the tracing was so irregular on account of the convulsive movements that the pulse could not accurately be counted.
Injection,	.0			
	.15	47	.8	
	.30	44	1.0	
	1.00	52	.3	
	1.30			
	1.35	Violent convulsions.		

The animal died in convulsions with dilated pupils.

The results were identical with those obtained when the pneumogastrics were entire, so that the effect on the heart is direct, and not by inhibition through the pneumogastrics.

The results of the autopsy in both of the above experiments are identical, and may be summed up as follows:

Autopsy, made immediately after death.—Heart arrested in diastole; heart does not react to induction currents; muscles everywhere respond to electric stimulation; motor nerves intact; cord unirritable, and will not respond to the strongest current produced by one large gravity cell, with Du Bois Reymond's induction coil; bowels still irritable; peristaltic movements occur spontaneously; the intestines are natural in color, as are all other organs. After five minutes the heart began to contract, and was finally found in a systolic condition. The interior of the organ was full of black clots, especially the auricles, the left ventricle containing but a very small clot.

In order still further to determine the effect on the heart, the following experiments were made:

Experiment IV.—

hrs. min.	
7.33	Pithed frog and exposed the heart.
.52	Heart beats 21 in 30 seconds.
.52½	Placed a small portion of dried venom of Heloderma on the heart.
.56	Heart beats 20 in 30 seconds.
8.05	" " 19 " "
.18	" " 18 " "
.30	" " 15 " "
.43	" " 14 " "
.55	" " 10 " "
9.30	" " ceased.

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Experiment V.—

hrs. min.	
8.05	Took two "cut-out" hearts of frogs, and placed them in a normal salt solution in separate vessels, just sufficient liquid being used to cover the hearts. On one heart was placed a small quantity of dried venom.
.27	The poisoned heart beats more feebly than the other.
.30	" " " " still more feebly than the other, which is yet firm.
.45	The poisoned heart stopped beating, the other beats firmly.
.55	The poisoned heart stopped beating, the other beats firmly but slower.

Experiment VI.—

3.45	Exposed the hearts of two pithed frogs.
4.00	Placed on one some dried venom.
.30	The poisoned heart beats are decidedly feebler than the other.
.50	The poisoned heart beats more feebly; the unpoisoned heart beats firmly and apparently in a normal manner.
6.00	The poisoned heart beats very feebly and does not fill with blood. The normal heart beats firmly, and fills well with blood at each beat, making a striking contrast with the poisoned heart.

We may conclude that—

The poison of Heloderma causes no local injury.

That it arrests the heart in diastole, and that the organ afterwards contracts slowly—possibly in rapid rigor mortis.

That the cardiac muscle loses its irritability to stimuli at the time it ceases to beat.

That the other muscles and the nerves respond readily to irritants.

That the spinal cord has its power annihilated abruptly, and refuses to respond to the most powerful electrical currents.

This interesting and virulent heart poison contrasts strongly with the venoms of serpents, since they give rise to local hemorrhages, and cause death chiefly through failure of the respiration, and not by the heart, unless given in overwhelming doses.

They lower muscle and nerve reactions, especially those of the respiratory apparatus, but do not, as a rule, cause extreme and abrupt loss of spinal power.

Finally, they give rise to a wide range of secondary pathological appearances, which are absent from Heloderma poisoning.

There remains on our minds no doubt as to the fact that the fluid which drips from the mouth of Heloderma when it bites is a very active poison. The present study is, however, limited in range, and we cannot yet feel sure that the fluid in question comes from the glands now presumed from their relation to the teeth to be poisonous.

The briefest examination of the lizard's anatomy makes clear why it has been with reason suspected to be poisonous, and why it poisons with so much difficulty. Unless the teeth are entire, the poison abundant, and the teeth buried in the bitten flesh so as to force it down into contact with the ducts where they open at the crown of the teeth, it is hard to see how even a drop of poison could be forced into the wounds. Yet it is certain that small animals may die from the bite, and this may be due to the extraordinary activity of the poison, and to the lizard's habit of tenaciously holding fast to what it bites, so as to allow time for a certain amount of absorption.

It is plain enough that a lizard as small as the one exhibited would be very unlikely to inflict a wound fatal to man; but it is possible that the larger animal—and it is said to reach a length of three feet—might prove a more efficient poisoner.

We are unwilling to drop the subject without a few words as to the nature of this poison.

The recent researches of Dr. Sternberg and Prof. Gautier have shown that human saliva may kill a rabbit in twenty-four hours, according to the former observer, and a pigeon in a few hours, he does not say how many, according to the latter, if a quantity of saliva have been concentrated by heat and so used. Professor Gautier thinks the saliva and all venoms owe, at least, a part of their power to normal ptomaines or animal alkaloids, the products of putrefactive processes, and recalls to us the fact that most secretions are measurably poisonous.

The answer to these views we shall have to consider elsewhere, and at length, but it will be sufficient here to say that there is no resemblance between the symptoms caused by the known ptomaines and those produced by any of the venoms. When it was shown that healthy human saliva was competent to kill, it was natural enough to leap to the conclusion that the venoms were merely concentrated salivas. The analogy ends with the fact that both may cause death, but the one may kill in twenty seconds, and the other requires, at the least, many hours, whilst also it seems, as regards saliva, to be, in some degree, a question of the toxic activity of certain individuals, not all being so uncomfortably endowed as Dr. Sternberg himself.

A CASE OF ACUTE ARTICULAR RHEUMATISM IN A CHILD.

BY WEBSTER S. SMITH, M.D.,
OF WEST MILTON, OHIO.

THE occurrence of acute articular rheumatism in infants and young children has been admitted by some medical writers and denied by others. Senator says, "Children under four are scarcely ever affected;" Bristowe, "Young infants scarcely, if ever, are attacked;" and Bartholow, "Rarely occurring before seven."

The following case will, no doubt, be of some interest on this disputed question.

On October 7, 1882, Mrs. B., called at our office with her boy, aged two and a half years. She stated that on Oct. 5 he had a severe chill, followed by fever and profuse sweating. The next day she thought the symptoms had somewhat subsided, and child better; but on the morning of the 7th the child seemed worse, and she gave him a dose of castor oil, which operated without affording relief. Dr. Pearson, my associate, prescribed for the child antiperiodic doses of quinine in solution with aromatic syrup of rhubarb.

Oct. 10.—Dr. Pearson found the child with a temperature of 104½°, pulse 150, tongue badly coated, sweating profusely, and on the verge of convulsions. Prescribed aconite and bromide of

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potassium. 7 P. M., temperature 104°; the nervous symptoms somewhat abated.

11th.—7 A. M., temp. 103°; and, for the first time, the knee-joint was observed to be swollen, hot, and very painful when moved—the child crying out even from the weight of the bed-clothes. In the afternoon I found the child with the left limb semi-flexed, and his head buried in the pillows, resting almost the whole weight of his body on his head and heels, screaming out every time his hips or the inflamed joint were moved; temperature was somewhat lower, and pulse strong, frequent, and regular. Ordered hot fomentations to the knee-joint, and continued treatment.

12th.—Dr. Pearson observed irregularity of the pulse; temp. 102°; slight delirium on wakening; knee-joint still swollen, and exceedingly painful. In the afternoon I saw the case with Dr. Pearson: child very drowsy, pulse irregular, respirations hurried and spasmodic, and inequality of the pupils, but *no* deafness, squinting, nor intolerance of light and sound. A bronchitis was beginning to develop, with a dry, hacking cough. Dr. Baker saw the case in consultation, and agreed in our diagnosis of acute articular rheumatism. Prescribed the following:

℞.—Acidi salicylici,
Sodæ bicarbonatis, . . . āā ʒj.
Aquæ cinnamomi,
Aquæ, ... āā ʒj.—M.

Of which the child was to take a teaspoonful every hour; placed a narrow blister over cervical region of spine, and also blisters over knee and hip-joint. Prescribed small doses of tinct. belladonnæ for irregularity of pulse.

13th.—Dr. Pearson and I saw the case together: slight irregularity of pulse, temp. 101½°, no inequality of pupils, tongue badly coated, but general condition of child improved. Continued treatment, and added small doses of calomel every hour.

14th.—Passed a restless night; pulse 128, temp. 101°; left off calomel, and continued previous treatment.

15th.—Pulse 120, temp. 100¼°; better; herpes around the lips, and mouth very sore; bowels moved twice during the night. Discontinued salicylic acid, and prescribed chlorate of potash for the mouth.

16th.—Worse; right temporo-maxillary articulation became involved during the night, and was considerably swollen by morning; complained of pain in the phalangeal articulations, but able to move the inflamed hip and knee-joint freely without pain; temp. 103¾°. Prescribed salicylic acid treatment again.

17th.—Passed a very restless night; grasps his jaw with his hand; pulse 140, and regular; temp. 102°; sleeping quietly this morning; taking milk-toast freely for nourishment; temporo-maxillary, the only articulation complained of. Ordered hot fomentations to jaw, in addition to the salicylic acid treatment.

18th.—Temp. 103½°; bowels loose; slept well during the night and complained very little of pain in the joints; some tenderness over the bowels; mouth very sore; left off salicylic acid and gave Dover powder and bismuth every two hours.

19th.—Temp. at 10 A.M., 101½°; pulse 150, regular, but weak; bowels loose; complains occasionally of pain in knee-joint; lies with head thrown back; drank considerable milk this morning.

20th.—Temp. 99½°; passed a very restless night; diarrhœa persists; taking milk freely.

21st.—Temp. 100½°; diarrhœa still continues; complains of pain in cervical region; head thrown far back; no trouble in other joints; pulse 140, regular and weak; prescribed bismuth.

22d.—Temp. normal; lips very sore; prescribed tar ointment.

23d.—Temp. at 8 P. M., 102½°; humero-scapular articulation involved; great pain on movement of this joint; lips better; diarrhœa better; pulse regular but weak; prescribed aconite and bismuth every two hours.

24th.—Tem. 9 A. M., 101½°; pain in left shoulder; treatment continued.

25th.—Dr. Pearson called in the evening and found fever rising, but did not take temperature owing to restlessness of patient; pain in knee very severe; he prescribed Dover powder, aconite, and hot fomentations.

26th.—I called in the morning and found temperature 103¼°; pulse full, strong, and rapid; bowels regular; prescribed drop doses of aconite every two hours; ordered patient to be sponged off at 4 P. M.; found child very nervous; temperature still high, ordered bromide of potash. At evening visit child had choreic symptoms; impossible to feel pulse owing to motion of arm; tongue convulsed; movements of muscles of the face.

28th.—I was called hurriedly to see child; found abdomen distended and tympanitic; child having choreic movements of face and upper limbs; temperature 101¾°; pupils dilated; passages frequent and very offensive; pain over abdomen; ordered bromide of potash, Dover powder, brandy, and hot fomentations to abdomen.

29th.—Abdomen softer; passages normal; choreic movements continued, but patient better.

30th.—P. M., temp. 103½°; other symptoms better; child very drowsy.

31st.—A. M., temp. 104¾°; very dull and restless; prescribed a large dose of quinine to reduce fever; in afternoon child went into coma, from which it did not arouse until November 1, and then took small amount of brandy.

Nov. 1.—Temp. 102½°; child in coma.

2d.—Coma continues; died at 3 P.M.

There was some difficulty in making a diagnosis of the case in the start, the knee-joint symptoms not manifesting themselves until October 11. The remission of symptoms, October 6, led us to look at first at the case as one of intermittent trouble. Also the condition of opisthotonos led us to consider cerebro-spinal meningitis in making our diagnosis.

The diagnostic provings we would get, after looking at the history of the case, would be these: the frequent high temperature, the number of joints in-

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volved, the pericarditis, and the choreic symptoms following in the latter part of the disease.

Salicylic acid was given and discontinued several times during the case, owing to the severe symptoms it produced on the mucous membranes.

Since reading an article in the October number of the *American Journal of the Medical Sciences*, on "Rheumatic Leucoinoitis," by Dr. Buckler, of Paris, considerable interest attaches to the case in regard to the bronchitic symptoms. These attacks were fleeting, for instance, that of October 12, in which, I have no doubt, the white fibrous tissue under the mucous membrane of the bronchial tubes was the seat of the rheumatic trouble.

The death was due to hyperpyrexia and coma, a fatal termination of the disease according to Bartholow.

HOSPITAL NOTES.

BOSTON CITY HOSPITAL.

(Service of C. D. HOMANS, M.D.)

EXCISION OF BONES OF THE FOOT; IODOFORM POISONING.

(Reported by ROYAL WHITMAN, M.D., House Surgeon.)

THE patient, an anæmic girl, 20 years of age, entered the hospital May 16, 1882, and gave the following history:

One year before, she had sprained her left ankle. The accident was followed by pain, swelling, and stiffness in the joint, which confined her to the house for five weeks, and since then she has been unable to walk without the aid of a crutch. About one month before her entrance into the hospital the ankle began to swell, and she noticed that the foot was slightly displaced outwards.

The examination showed the following condition:

The left foot was slightly everted and displaced outwards, and over the inner malleolus was a prominent swelling, fluctuating and tender on pressure, about two inches long and one inch in diameter. There was some stiffness about the ankle-joint, and motion was slightly painful. The fluctuating point was incised, and a considerable quantity of pus was evacuated. No dead bone was discovered, and splints and poultices were applied. The joint, however, gradually became more swollen and painful, and the patient began to show signs of constitutional disturbance.

June 2.—Incisions were made upon either side of the joint, and extensive disease of the bones was discovered. A horse-hair drain was then passed between the astragalus and os calcis. During the two following weeks the pain became more severe, and the patient rapidly grew worse; and on June 23, the patient having refused amputation, Dr. Homans decided to attempt to remove all the diseased bone.

The patient was etherized and the former incisions upon each side of the joint were enlarged. The astragulus was then removed entire. The os calcis, which was also in a soft, carious state, was then removed, with the exception of about three-fourths of an inch of the posterior portion to which the tendo Achillis is attached, from which the body of the bone was removed with the chain-saw.

Nearly all of the tarsal bones, which were almost universally diseased, were removed with the bone forceps. The disease had not apparently affected the lower surface of the tibia or the metatarsal bones. The immense cavity was then packed with carbolized sponges, and the collapsed foot brought up into fair shape and splints were applied. After the operation, the pain, which had been severe, was entirely relieved.

27th.—The leg was placed in a plaster splint, with openings on either side, and the cavity of the wound was packed with iodoform and absorbent cotton, which was allowed to remain for two days.

On the 29th inst., it was noticed that the patient seemed somewhat drowsy. She suffered no pain, and healthy granulations were springing up from all sides of the cavity.

30th.—The drowsiness increased, and the patient seemed somewhat stupid. There was no pain or rise in temperature or pulse.

July 1.—Patient remained in about the same condition.

2d.—The patient continued in the same drowsy, stupid condition, but was also at times hysterical and slightly delirious. The iodoform was removed, and the wound carefully cleaned and dressed with chlorinated soda wash.

3d.—The patient was drowsy during the day, but violently delirious during the night.

4th.—This condition gradually passed off. After this her symptoms progressed favorably.

20th.—The cavity had been nearly closed by granulations, and the external wounds had commenced to cicatrize.

August 1.—The patient could support the foot, which had retained nearly the original shape. The external wounds were slowly cicatrizing, and there was but a moderate amount of purulent discharge. A few fragments of necrosed bone could be felt. There was but little pain, and the patient's condition was good.

25th.—Though the patient was progressing as favorably as could have been expected, yet she decided that she could not remain an invalid for the six months or a year necessary for her recovery, and insisted upon having the leg amputated, which was accordingly done by Dr. Thorndike, at the junction of the middle and lower third.

An examination showed but little evidence of disease in the foot. The tibia and fibula were in close contact with the fragments of the tarsal bones, and of the os calcis, and a variety of false joint had formed, showing the possibility of a recovery after such an extensive removal of diseased bone. The patient rapidly recovered, and was discharged October 5th.

There has been one other case of suspected iodoform poisoning at the hospital. It occurred in the case of a boy on whom an operation for the removal of necrosed bone from the tibia had been performed. The resulting cavity, which would contain, perhaps, one-half drachm, was packed with iodoform, which was allowed to remain as a permanent dressing. In about two weeks after its introduction, it was noticed that the boy was becoming drowsy, falling asleep at all hours. Otherwise his condition was good. The iodoform was removed, and this condition passed off.

Though a large quantity of iodoform has been used at the hospital during the past year, these are the only cases in which any symptoms of poisoning have been noticed.

MEDICAL PROGRESS.

A CASE OF EXTIRPATION OF THE LARYNX.—DR. KARL MAYDL reports a successful case of extirpation of the larynx, performed in Prof. Albert's clinic, in Vienna, on a man, aged fifty years, for an extensive carcinomatous tumor of the larynx which interfered with respiration and deglutition. Tracheotomy was first performed, and Trendelenburg's canula introduced and allowed to remain for three days. Recovery

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rapidly occurred and an artificial larynx was inserted. —*Wiener Med. Presse*, December 31, 1882.

PARACENTESIS PERICARDII.—A case of acute pericarditis with effusion, occurred in the Leeds Infirmary, under the care of DR. CLIFFORD ALLBUTT, for which paracentesis was performed, about one ounce of bloody serum being removed; recovery took place. The drugs employed in the case were various, and given, with the exception of salicylate of sodium, rather with the idea of combating the tendency to death than with any specific notion, and consequently have not been noted. It may be well to note that blistering was discarded. Among the many points of interest in the case, the following may be specially noted: 1. The rather doubtful rheumatic nature of the case at the commencement, and the failure of salicylate of sodium to relieve. 2. The total absence of all joint affections, assuming it to have been a case of rheumatic fever. 3. A point so difficult to display in the notes, but so obvious to all who saw the case from day to day; the rapidly downward course of the case immediately prior to the aspiration, and the unaided part the operation played in saving life. 4. The comparatively rapid absorption of the effusion after the withdrawal of so small a portion of it.—*Lancet*, January 27, 1883.

MYXŒDEMA.—M. GUERLAIN has observed a remarkable case of myxœdema, or pachydermatous cachexia, supervening on a wound of the neck. M. Verneuil points out that the nervous nature of this affection now appears to be clearly demonstrated; and that it is perfectly admissible that, in the case above referred to, as in many other diseases, the wound may have an influence on the central nervous system capable of bringing on special phenomena.—*British Medical Journal*, February 3, 1883.

COMPRESSION OF THE AORTA IN POST-PARTUM UTERINE HEMORRHAGE.—DR. WILMART, of Brussels, relates, in the *Presse Méd. Belge*, a case of atonic uterus in which, after the rapid completion of delivery by the forceps, alarming uterine hemorrhage set in, which reduced the patient to a moribund state. Having administered ergot in vain, he had recourse to the application of pressure by means of the fingers between the third and fourth lumbar vertebræ, the patient being placed in a position with her head downwards and her feet uppermost. The compression of the aorta had to be maintained for a long period, every removal of the fingers being attended by a recurrence of the hemorrhage; but eventually the compression, aided by ergot and brandy, proved completely successful. Dr. Wilmart observes that few know the difficulty and pain caused to the operator while making this compression for a a sufficiently long time, especially, as in his case, where there is no assistant at hand.—*Med. Times and Gazette*, February 3, 1883.

CARBAMIDE AS A SUBSTITUTE FOR QUININE.—The *Journal d'Hygiene* learns from Gen. Kokhowski that DR. BELVOUSOFF has discovered an efficient successor for quinine. Belvousoff, Prosector of the University of Kharkoff, presented his memoir before the Russian Commission of Hygiene on the 5th of October last, recommending carbamide, the rational formula of which is

$$\left.\begin{matrix} CO \\ H_2 \\ H_2 \end{matrix}\right\} N_2,$$

as the substitute for quinine.

From experiments made in the hospitals, the following results were obtained: 1. That in cases of intermittent fever carbamide acts as a specific. 2. That this remedy can be employed in many other complaints to reduce the temperature of the patient; it is, moreover, without taste, and does not depress the nervous system.

This action of carbamide is easily understood in the light of the latest researches on uræmia. It is also well known that in southern Russia and Montenegro the peasantry are accustomed to cure themselves of intermittent fevers by the use of urine as a medicine.

Belvousoff has also shown that carbamide instantly kills the lower organisms, such as bacteria and vibriones, just as quinine does.

From an economical point of view, says the writer, the discovery is very important, as carbamide is much cheaper than quinine.

[Carbamide, or *urea*, can be obtained from urine, but is usually made by the action of cyanate of potash on sulphate of ammonia.]—*Scientific American*, Feb. 10, 1883.

THE EXPLORATION OF THE BLADDER BY PERINEAL SECTION.—At the meeting of the Royal Medical and Chirurgical Society, held January 23, 1883, SIR HENRY THOMPSON asked attention to a new method of investigating obscure diseases of the bladder, which promised to be valuable in certain conditions occasionally met with. Every one sometimes meets with a case in which the symptoms of vesical disease are severe and obstinate; and, although very careful examination is made, is unable to arrive at a rational diagnosis. The occurrence is, doubtless, not a common one; in the great majority of cases, carefully made observations demonstrate the nature and seat of the disease. But for the exceptional cases, always important—cases generally marked by frequent or persisting hæmaturia of some standing, manifestly not renal, and without local sign of cancerous tumor—he proposed to take decided action, and to submit, further, that such action should not be unduly postponed. The essential step in the method proposed was to examine the entire internal surface of the bladder with the finger, by which means we can recognize the presence of any tumor, large or small, the existence of encysted calculus, etc. The method of doing this he illustrated, and showed it to be a proceeding simple and easy of performance, and at the same time one which involved little, if any, danger to life. It consisted in making a small opening from the raphé of the perineum to the membranous urethra, which was opened on a grooved staff, just enough to admit the left index finger to enter the canal and to be pushed on to the neck of the bladder. Provided the anæsthesia of the patient was so complete that the abdominal muscles were perfectly relaxed, every portion of the internal surface of the bladder might be brought consecutively by suprapubic pressure into close contact with the tip of the finger, and any deviation from the natural condition, however slight, might be noted. The operation was an external urethrotomy only, and involved neither the prostate nor the bladder. The application of the proceeding, not only to diagnosis, but subsequently to treatment, was then discussed. It was shown to offer facility for the removal of tumors, impacted calculus, etc. Seven or eight cases in which the operation had been performed were cited, and several examples of tumor were exhibited which had been removed by the author. These latter were examples of a disease which was inevitably fatal unless removed by operation. The signs and symptoms of their presence were discussed; great care was necessary in examining the state of the patients before having recourse to operation. The two conditions, the absence of which it was important to be assured of before interfering, were renal disease and cancer

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Hæmaturia from either of these sources of course absolutely contraindicated an operation.—*British Med. Journal*, January 27, 1883.

INTRA-UTERINE STRANGULATION OF A FŒTUS BY ITS OWN UMBILICAL CORD.—In the *Centralblatt für Gynäkologie*, January 20, 1883, DR. E. FRAENKEL reports the case of a woman who was delivered of twins, one living, and the other dead and in a macerated condition, the death evidently having been produced by compression of the umbilical cord, which was twisted five times tightly around its neck and separated from its placenta.

DETECTION OF BACILLI IN THE BREATH OF TUBERCULOUS PATIENTS.—By the following simple method, DR. R. CHARNLEY SMITH has succeeded in demonstrating with facility the presence of the bacilli of tubercle in the breath of patients suffering from true tubercular phthisis. For which purpose, he allows the patient to breathe, at frequent intervals during the day, through two thin sheets of pyroxyline or gun-cotton, one layer in front of the other, and both of which are placed in the outer compartment of an ordinary "pepper duster" respirator. The cotton when so arranged will act as a double filter—the external layer removing from the in-going air all the suspended particles, such as dust, micro-fungi, starch, etc., which are always more or less present in it, and which it is desirable to exclude; the internal layer retaining only those particles which come from the lungs—viz., micrococci, bacilli, and some epithelial scales. It is, therefore, in the layer which has been next to the mouth of the patient that he seeks for the bacilli peculiar to this disease. This he does by converting the pyroxyline into collodion by dissolving the former in a mixture of rectified spirit and ether. By this means the whole of the cotton fibre dissolves, but the organisms which have been emitted from the lungs are unacted on by this menstruum, and remain suspended in it, but not visible to the naked eye.

To render the bacilli manifest, his plan is to pour the thin collodion thus formed on a microscope slide and allow the fluid to run uniformly over the surface of the glass, then immediately to turn the glass on one of its edges, that only the merest film of collodion may remain on the glass. The thinner the film produced the more successful will the experiment be. The film is then to be stained. This may be done by one of the methods now well known to the profession, such as that of Ehrlich or of Heneage Gibbes.—*Lancet*, Jan. 20, 1883.

RETENTION OF A DETRUNCATED HEAD AND THE PLACENTA IN UTERO FOR FORTY DAYS.—This astonishing case is reported in a recent number of the *Archiv für Gynäkologie* by DR. ALOIS VALENTA. The patient was thirty-five years old, and this was her fourth child. Labor came on at term, the child presenting with the shoulder. A medical man was called, who proceeded first to detach the lowermost arm, and then to bring down the feet. He delivered the body, but could not get the head to follow, so he cut through the neck and left the head behind. Two other doctors were then called in, but all they did was to administer ergot and advise that the patient should be taken to a hospital. This her husband would not hear of, and so nothing was done. Eight days after the medical men had seen her, a midwife was called in; but she did nothing except syringe the vagina with warm water every two or three days. The patient all the time had no bad symptoms—no rigor, no particular pain, no bladder or rectum trouble, ate well, and slept well; the only thing was that she felt weak, and that the lochia stank insufferably. Thirty-eight days after the labor the patient rebelled against marital authority, and had herself taken to the hospital. When seen there, her pulse was 72, temperature 99.5°. There was no sign of uterine action, and the uterus seemed to have undergone complete involution, being spread like a thin cap over the retained head. Three days after admission, the vagina having been first repeatedly shringed with a three per cent. solution of carbolic acid, the cervix was dilated with sponge and tupelo tents, and repeated doses of ergot were given. This brought away discharge and small fragments of bone, but the patient felt no pain, although intermittent hardening of the uterus was perceptible. After dilatation, the bones of the fœtal head were seized, as they could be got at, with strong polypus forceps, and carefully removed. The chief difficulty was found with the parietal bones, which were in such close coaptation with the uterine wall that it was difficult to seize them, and when seized, it was necessary to double them up (a thing not easily done) in order to get them through the cervical canal. About forty bits of bone were taken away. Then the placenta, which looked quite fresh, was detached with the finger, and removed piece-meal—a proceeding which occasioned some hemorrhage. The whole operation occupied about an hour and a half. When it was finished, the uterus was washed out with hot water, and ergotine injected subcutaneously. The patient recovered without a bad symptom. Dr. Valenta has only been able to find in literature one case resembling his. This is recorded by Freund. In his case the detached head was retained for ten years, the uterus, as in Valenta's case, showing no inclination to expel it.—*Med. Times and Gazette*, Feb. 3, 1883.

THE BACILLUS OF TUBERCLE.—For several months DR. G. A. HERON has been studying the clinical and diagnostic applications of Koch's discovery of the bacillus of tubercle, and from his experience of sixty-two cases of phthisis of both sexes and of various ages, in which he was able sooner or later to detect it, he has come to the conclusion that such observations are of the highest value both in diagnosis and prognosis, apart from their pathological interest and bearings on public hygiene. Not only are the bacilli absent from those cases of chronic catarrh, emphysema, bronchiectasis, etc., which closest approach to tubercular phthisis, and always present in tubercular cases, but the number—*e. g.*, from three or four to thirty or fifty in a field—bears a direct proportion to the probable rapidity of the course of the disease to a fatal termination. The worst cases are those in which the bacilli are grouped in dense masses. Koch has found that the dried sputa from a hospital floor were as effective in inducing tubercle in animals when inoculated as were fresh sputa, and though hereditary and other conditions may play a part in the propagation of phthisis, there can be little doubt of its infective character in the light of recent discoveries.—*Med. Times and Gazette*, February 3, 1883.

THE ACID OF THE GASTRIC JUICE.—DR. V. POULET has made a large number of experiments on the gastric juice of different species of animals subjected to dialysis, and claims that the principal acid of this fluid is neither lactic nor hydrochloric acid, but hippuric acid in the form of acid hippurate of potassium, combined with neutral phosphates of lime and sodium. The author bases this opinion on the microscopic appearance of the crystals and on the fact that when gastric juice is subjected to dialysis, evaporated at 120° C. to a syrupy consistence, and then treated with an excess of caustic potash or quicklime, the characteristic odor of benzine may be recognized on dry distillation.—*Journ. de Méd. de Paris*, January 27, 1883.

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SANITARY CONSTRUCTION OF FOUNDATIONS.

IN the selection of building sites and in the construction of houses, far too little attention is bestowed upon the conditions of the soil and the means of averting the injurious influences arising from a damp and impure state of the ground. It is a well-known fact that all soils, even those of the densest formation, are more or less porous, and are therefore permeable by air and water. It is important to bear in mind that there is a constant circulation of the air beneath the surface of the ground, which depends upon various influences, such as heat, atmospheric pressure, rainfall, force of the winds, etc. The "ground-air," as it has been called, acts as a medium for conveying impurities which exist in the soil, and, in a polluted state, is a prime factor in rendering foundations unhealthy.

At variable depths beneath the surface of the ground, there is a continuous stratum or body of water formed by the saturation of the pores and spaces of the soil, to which the significant name of "ground-water" has been given by German writers. Above the line of saturation or water-level, the soil is simply moist, that is, contains both water and air in variable quantities. A high water-level is the chief cause of dampness of the soil and of the structures above it. There is the greatest difference in soils with respect to their power of absorbing and retaining moisture, and none are entirely without it. The rise and fall of the ground-water, by which the soil is at one time saturated with water and at another exposed in a moist state to the action of the ground-air and heat—conditions favorable to the decomposition of impurities left in the interstices—is now recognized as having an important relationship to the causation of disease, as had been pointed out by Pettenkofer and others. A knowledge of these facts is essential to a clear understanding of the manner in which certain hidden agencies operate in making a foundation unhealthy, and is indispensable in applying the means to counteract their injurious influences.

A damp or water-logged soil is one of the common causes of disease. Its influence upon the causation of consumption, rheumatism, catarrh, and other diseases, is no longer disputed. On the other hand, dry, porous soils are generally considered healthy, but even such soils may be injurious to health on account of the facilities they afford for the free circulation of air from impure sources, and the possibility of such contamination must be considered in constructing the foundation and ground floors.

We know that air is universally present in the soil, and that it is more or less movable. It is still further important to observe that the air in the ground is in intimate relation with the air in the house. During most seasons of the year the current is from the soil to the house. This is particularly the case in seasons when houses are artificially heated. The modern plan of heating buildings by means of fires in the cellar or basement, increases the chances of the escape of ground-air and favors the diffusion of any impurities it may contain throughout the apartments.

The ground-air may become the carrier of noxious elements derived from a polluted condition of the surrounding soil. Some of the common sources of soil-contamination to be guarded against are badly constructed sewers, leaking gas-mains, leaking cesspools, leaking drain-pipes, and slops and other refuse matters thrown upon the surface of the ground. In cities it is frequently the case that houses are built upon "made-ground," which is largely composed of animal and vegetable refuse matter. Under the influence of an active change of air and water, this organic matter undergoes decomposition, the deleterious products of which are imparted to the circumambient air and borne on its current, under circumstances generally present, through the foundations and basement floors of the dwelling.

We have been accustomed to consider soil-pollution more particularly in its relations to contamination of the water-supply, ignoring the fact of its equally intimate relation to a vitiated condition of the ground-air which is in active intercourse with our dwellings. In cities, where wells are rarely depended on for the water-supply, this latter result is most to be dreaded. Pettenkofer complains that we took rather a short-sighted view when we be-

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lieved "that the nuisances of our neighbors could only poison the water in our pumps; they can also poison the ground-air for us, and," he remarks, "I see more danger in this, as air is more universally present, and more movable than water."

The selection of a proper site and a careful regard for "cleanliness of the soil and diminution of the organic processes in the ground of dwelling-houses," are the essential requirements to observe in preventing poisoning of the ground-air.

It is not always possible to select a proper site for a dwelling, especially in populous places. Nor is it always within our control to prevent the defilement of the soil and ground-air, even upon our own premises. Hence the necessity of seeking the advice and appliances of the sanitary engineer in the construction of foundations and basement floors to secure an effectual barrier to the ingress of ground-air and all that it portends.

It is humiliating to observe how very little attention, from a sanitary standpoint, is given to the conditions existing beneath the surface of the ground and to the means of excluding ground-air and damp. It is the super-structure, more especially, which claims consideration. And yet, in the construction of houses, there is no more important subject than that relating to the selection of the site and the sanitary arrangement of the details of the foundation.

In selecting a site a great many important factors influence the decision of the question, but when the choice is unrestricted there need be no difficulty in determining it correctly by the aid of the well-defined rules laid down in works on the subject. But it rarely happens that one has the opportunity of selecting a location which possesses every natural advantage; and hence, the necessity of resorting to art to improve the conditions of the soil and avert the injurious influences associated with polluted ground-air and damp. The means of securing these objects are briefly summed up in an article on "damp-proof material" in the *Sanitary Record* of May 15, 1882, which we quote as follows:

1st. Drainage is one of the chief considerations. It has been found that for a building to be hygienic, the subsoil water ought not to be allowed to rise higher than five feet below the foundations. For this purpose, several lines of drain-pipes laid at this level, and discharging into a suitable outlet, are necessary, and these may be constructed in connection with areas round the walls, with a channel for carrying off the water from higher levels.

2d. The most effectual safeguards are, the employment of impervious materials to check the rise of ground-air, such as covering the site with a layer of Portland cement concrete, or with a coating of asphalt.

3d. The use of damp-proof courses in the walls, such as slate, vitrified materials, asphalt, and perforated courses of stoneware, to prevent the rising of moisture in the walls by capillary attraction.

4th. The ventilation of foundations and basements below the ground-floor, which may be effected by raising the ground-floor above the soil, by dry areas round the walls, and by ventilating-bricks.

NEUTRALIZATION OF TUBERCULAR VIRUS.

THE most conclusive evidence as yet adduced in favor of the contagiousness of tuberculosis has recently been brought to the attention of the Academy of Medicine of Paris by DR. VALLIN, in a paper bearing the above title, in which he gave the result of certain experiments having for their object the determination of the effect of disinfecting substances upon the tubercular virus.

To this end, fragments of pulmonary tissue infiltrated with tubercle, and taken from a man dying of phthisis, were bruised in distilled water. This secondary tubercular matter resulting from the inoculation of the first, derived from man, Dr. Vallin used in his experiments. Filtering paper was saturated with the fluid thus obtained, dried, and cut into pieces of equal size. Some intended for control experiments were moistened with pure water, and of the liquid obtained by expression, fifty centigrammes were injected, August 1st, into the peritoneal cavity of healthy guinea-pigs. One was found dead on the 1st of October, in a state of great emaciation. A second was killed November 10th (the 101st day). In both, the liver and spleen were enlarged and very friable, the lungs were stuffed with confluent tubercular masses, in the midst of which the parenchyma of the organ had almost disappeared.

Other pieces of the virulent paper were submitted to the action of various disinfectants: the fumes of sulphurous acid, corrosive sublimate, nitrous acid fumes, etc., before being used for inoculations. In a chamber of fifty cubic centimetres capacity, the little pieces of paper were suspended at the distance of two metres from the floor; the sulphur burned was divided into four separate portions; the chamber was thoroughly closed, and the exposure to the vapor continued twenty-four hours.

The animals inoculated with the paper thus disinfected with quantities of forty and thirty grammes of sulphur, remained uninfected; of two guinea-pigs inoculated with the virulent paper disinfected by twenty grammes of sulphur, in one the abdominal organs were tubercular, while the other remained healthy. With the dose of sulphur at fifteen grammes, a guinea-pig inoculated was found tuberculous throughout; and whenever the quantity of

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sulphur burned was less than twenty grammes all the animals were found tuberculous.

Other experiments were made with pieces of paper disinfected with boiling water, which apparently also destroyed the germs, the animals inoculated remaining unharmed. Corrosive sublimate in solutions of the strength of one part in one thousand possessed the same property; so also did nitrous acid.

The important practical deduction from these experiments is that prisons, barracks, hospitals, and schools should be from time to time purified by sulphurous fumigations, which seem at once the most efficient and convenient of the measures employed.

THE TREATMENT OF DETACHMENT OF THE RETINA BY NITRATE OF PILOCARPINE.

THE brilliant results which have been attained by the subcutaneous injection of pilocarpine in the treatment of detachment of the retina, are immensely suggestive in respect to the application of this agent for the removal of inflammatory exudations. The strength of the solution employed is one-twentieth, and the dose of each injection is about one-sixth of a grain. The following plan has been found most efficacious: the injections, of the strength above mentioned, are administered in series of ten to fifteen; then a period of repose follows, lasting about eight or ten days, when the injections are resumed again, if necessary. They are usually given in the morning, about two hours after the meal, and inserted at any indifferent point.

The processes which thus go on under our eyes furnish us, in miniature, with a picture of the changes which ensue at any point, the seat of inflammatory exudation. If pilocarpine, when given subcutaneously, at a remote point, can cause the absorption of new material in the eye, will it not accomplish the same results in other tissues? There is here a profitable suggestion. As when exudations occur, the utility of remedies employed against the congestive stage of the inflammatory process ceases, it is, in a high degree, important to be possessed of a remedy which may cause the disintegration and absorption of the new formations. Pilocarpine seems to have this power. Unfortunately, it is so depressing to the vascular system that its use in sufficient quantity is not without danger. It has been used with success to remove pleural exudations, and it may have in the future wider applications in this direction, as we learn how to obviate its depressing effects.

ERGOT IN THE TREATMENT OF TYPHOID FEVER.

WE have from time to time noted the novelties of practice in the treatment of typhoid fever, and have published some important practical papers, showing the actual results of special methods. In the *Gazette Hebdomadaire* for January 5, 1883, we find the conclusions to which Dr. Lardier has been conducted by the observation of 73 cases of typhoid fever treated by the administration of some form of ergot. His first conclusion is that ergot is the most efficient remedy which he has hitherto employed in the treatment of typhoid. He rightly insists on the employment of a good preparation. Treated by a suitable form of ergot in good condition, during four years, he was enabled to determine the real value of this remedy in this disease. Of 73 cases treated by ergot in some form, the mortality was 9; in other words, was less than 13 per 100. In these cases there were no intestinal hemorrhages. The good results in this direction were, therefore, very obvious. In respect to the supposed curative effects, it cannot be doubted that ergot has had a distinct influence over the course of the disease. If the mortality by this method be compared with that which occurs in the course of other plans of treatment, the superiority of the ergot plan cannot be disputed. Such is the conclusion of Dr. Lardier. American experience is wholly new to this method. We trust some of our numerous readers will furnish us with new facts, and carefully recorded experience, demonstrating the real position of ergot as a remedy in the typhoid fever of this continent.

RHEUMATISM IN A CHILD.

IN the very interesting case of acute rheumatism in a child of two and a half years, reported in another column, several important questions arise. As Dr. Smith very acutely says, the question of cerebro-spinal meningitis was considered in making up the diagnosis. The joint changes which ensue in cases of meningitis have been described by Dr. Charcot and others. The late Prof. J. K. Mitchell advocated the neurotic origin of rheumatism, and his son, Dr. Weir Mitchell, has published many observations proving the dependence of joint changes on spinal and nerve lesions. It is now, indeed, established that changes in the joints which cannot be distinguished from those of acute rheumatism, occur in cases of disease and in lesions of the spinal cord, the membranes, and the nerve trunks. This admitted, the case of Dr. Smith may be regarded from this point of view. The joint inflammation, the hyperpyrexia, the opisthotonos, and the muscular spasms (choreic), the whole concluding with coma, may be regarded as due to a common factor—meningitis. Whether one or the other view be taken, the case admirably illustrates the remarkable correspondence between acute rheumatism and certain spinal affections, and goes far to prove their community of origin. This admitted, acute rheumatism becomes not merely an inflammation of the fibrous tissues, but a neurotic affection.

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THE PROPOSED ANATOMY ACT.

THE Philadelphia anatomists have prepared a new Anatomy Act very much such as we proposed editorially some time since. It was read in the State Senate for the first time on Saturday last. *We beg our Pennsylvania readers immediately to write to their Senators and Representatives*, and to impress upon them the urgent need for such an Act, the justice of its provisions, and the wisdom of its restrictions. It has still to pass two readings in the Senate and then go to the House.

It creates a Board of Distribution, consisting of the Professors and Demonstrators of Anatomy and Surgery in the incorporated Medical and Dental Colleges of the State, with one representative from each private school of twenty-five pupils or more. All persons having charge of the unclaimed dead to be buried at public expense, are to deliver them to this Board, who direct their distribution equitably, and bear all expenses of such distribution. A bond of $1,000 is required of all persons receiving them, that they shall be used for the promotion of medical science within the State, and a penalty is affixed to their exportation beyond the State, or to traffic in dead bodies, and to disobedience of the provisions of the law. Colleges and schools are to be first supplied, of course, but any physician or surgeon can obtain a body by filing a bond and applying to the Board.

The Act applies to the whole State, so that any physician or surgeon whose anatomical knowledge is rusty, may refresh and renew it at his home as occasion may require. That such renewed knowledge is needful, as the petition accompanying the bill well states, is evident from the fact that the want of it renders medical men liable to suits for malpractice, and such suits are on the calendar of well nigh every court in the State. The injustice of the restriction of the present law to the unclaimed dead from Philadelphia County alone (for that of Allegheny County is practically unavailable), is startlingly shown by the fact that in the last ten years at the Jefferson and the University, to say nothing of the other schools, there were 2,686 students from Pennsylvania, of whom 1,172 were from Philadelphia and *1,514 from other parts of the State.*

Moreover, to give the unclaimed dead of the whole State for dissection, will prevent the desecration of graveyards, and will relieve the counties from the expense of their burial, while aiding the community by the increase of knowledge, and by preventing students from going to other States.

THE ANALYSIS AND SYNTHESIS OF ANIMAL MOTION.

No one who has heard Mr. Muybridge, of San Francisco, lecture, and seen his remarkable photographs, can fail to be intensely interested in the revelation of the actual postures of the horse, hound, ox, and other animals, and in the revolution in his ideas of the proper methods of representing them. We had recently the pleasure of attending his lectures to the students of the Academy of the Fine Arts in this city. By a number of successive views at brief intervals by exposures of each photographic plate for not over the one five-thousandth part of a second, he has been able to analyze the various gaits of animals such as the walk, trot, canter, and gallop, and the various poses of man in walking, running, leaping, wrestling, and various acrobatic feats, and then by means of a modified zoëtrope and magic lantern has again reproduced the gaits by a synthesis of the successive plates. The rude blow he has struck at all the artistic representations of motion is at first a perfect surprise. The postures seem extraordinary, often impossible in view of our conventional notions, and not seldom even ridiculous. But the greater our familiarity with them and the longer we study them the truer do they seem.

As a contribution to the physiology of motion, they are most important; among artists they have made a deep impression, and have gained the approval of no less distinguished painters than Meissonier and Sir Frederick Leighton.

NEW CITY CHARTER FOR SAN FRANCISCO.

WE have just received a copy of the new city charter for San Francisco, proposed by the Board of fifteen Freeholders. It is an octavo pamphlet of 204 pages.

In the department affecting medical matters we observe that the coroner is not obliged to be a physician and that he serves for only two years—both very serious errors according to our judgment.

The Board of Health, on the contrary, is well organized, consisting of the Mayor and City Attorney and four citizens, of whom three must be physicians. The Health Officer, who is an appointee of the Board of Health, as is proper, must be a physician, and he is obliged once a quarter to visit each public institution under the control of the Board and to make a sanitary inspection of each public school once a year. Not only physicians, but also householders, must report cases of contagious disease. The Health Officer reports every such case to the Superintendent of the Public Schools, and this latter officer excludes from the public schools all the children in such families until their re-admission is authorized by the Health Officer. This is an excellent practical regulation.

We observe also that the assistant city physician makes all autopsies for the coroner without extra fees, and that the two surgeons to the City Receiving

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Hospital are elected by the Board of Health from among the persons nominated by the faculties of the regular medical colleges.

We notice with satisfaction that Dr. W. F. McNutt is one of the Board of Freeholders who have drawn up this excellent charter.

LABORDE has lately studied, by the experimental method, the actions of quinine and cinchonine. Although they are used as if possessing the same powers, important differences are discovered between them. Hence, the adulteration of quinine with cinchonine, now so much practised in France, is especially reprehensible. Cinchonine produces convulsions of an epileptiform character, which M. Laborde entitles *cinchonic epilepsy*. Quinine in much larger quantity has no convulsant action, but induces stupor, deafness, general muscular resolution, loss of the reflexes, and profound insensibility. The sophistication of quinine by cinchonine seems to be the explanation of peculiar phenomena occurring in some cases of fever, treated by quinine in antipyretic doses.

REVIEWS.

THE PRINCIPLES AND PRACTICE OF SURGERY. By JOHN ASHHURST, JR., M.D. Professor of Clinical Surgery in the University of Pennsylvania, etc. Third edition, enlarged and thoroughly revised. 8vo. pp. 1064. Philadelphia: H. C. Lea's Son & Co., 1882.

THE appearance of the third edition of any work must always be gratifying to an author, as it is the strongest evidence of public appreciation of his work. A few additions have been made to the present edition, and tables and other statistics have been brought down to date, otherwise it differs but little from the last.

One of the most important points we notice is in the first paragraph of the "Addenda," in which the author records his continued disbelief in the special advantages of Listerism. We confess to some surprise in reading that the results recorded in Mr. Cheynes' *Antiseptic Surgery* are no better than "those which are habitually obtained in this country, at least by careful surgeons who do not adopt the antiseptic system."

The size of the volume prohibits any exhaustive treatment of each topic, but as a text-book, it is clear, succinct, conservative, and fair. As such we commend it unmeasurably.

DISEASES OF THE RECTUM AND ANUS. By CHARLES B. KELSEY, M.D., Surgeon to St. Paul's Infirmary for Diseases of the Rectum, etc. 8vo. pp. xii. 299. New York: William Wood & Co., 1882.

IT is an improvement on the old plan of reprinting works of foreign authors, many of them out of date, for the publishers of "Wood's Library of Standard Medical Authors" to furnish their subscribers with the writings of Americans, and fresh ones at that. True, by no means in every case where they have followed the latter plan, has the production justified the use of the term "standard" in connection with the author selected. Nevertheless, it has been better for the reader, in the main, and in many cases no doubt far more satisfactory to the foreign author who has escaped adoption into this cis-atlantic family and all which it implies.

The book before us is one of the best of this series. It is the work of an industrious and studious specialist, who has added to experience a reading that has apparently been very extensive. The result is a really good book, a book which we think better to have and to consult than any other one book on this subject with which we are familiar, because the author has drawn upon all the good books we know of, and some we had never heard of before, for material to be added to that which his own observation could contribute.

It might seem as if nearly three hundred pages were a great many to devote to the consideration of diseases of the rectum and anus, and yet as we go over Dr. Kelsey's book we do not find them too many, if we except some filled with reports of cases. And, while other authors better known have been able to say what they wanted in less space, we think this one justified in taking more, in order that he may introduce and compare their views and express his opinion upon them. He has thus furnished a sort of *multum in parvo*, an opportunity to be in consultation at one time with a number of the ablest men who have considered this subject particularly, which will prove of real value to the student and practitioner.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 15, 1883.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D., IN THE CHAIR.

AFTER the reading and approval of the minutes of the preceding meeting, the report of the delegates to the New York State Society, signed by Drs. J. L. Adams, W. R. Birdsall, and Arthur M. Jacobus, was read, and upon motion, received and placed on file.

The scientific work of the evening consisted in a paper by DR. W. H. DRAPER, entitled

DIET IN THE GOUTY DYSCRASIA.

The relations of food to normal nutrition, to the evolution of vital energy, and to the etiology and treatment of disease, he said, constitute some of the most interesting and important problems presented for the consideration of the practical physician. And it is one of the encouraging signs of the progress of scientific medicine that these problems are daily attracting and receiving wider and closer attention. The day has happily passed by when the selection of food is left to the instincts and intelligence of the patient. The physician is nowadays expected to prescribe the diet as well as the drugs, and the old adage that there is "death in the pot" is leading the laity to seek counsel of the doctor as to what they shall eat and drink, in order to antagonize the consequences of disease and to escape the perils that lurk in the indulgence of the table. It is only necessary to refer to the part which judicious feeding now plays in combating the evils of malnutrition arising either from inherited or acquired disease, to the daily increasing faith in the application of hygienic laws to therapeutics and the diminished confidence in a complicated pharmacy to illustrate the change that has taken place in the medical mind regarding the importance of diet in its manifold relations to health and disease.

The proper dietetic management of gout is a topic of great practical interest, because of the frequency

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with which manifestations of the gouty dyscrasia are met with, and because, originating, as it does largely from errors in diet the correction of these errors constitutes an important part in the treatment of the affection.

Gout, as a disease, in the traditional acceptation of the term, is a specific arthritis characterized by the deposit of the salts of uric acid in the affected joints.

Gout, as a diathesis, is a blood crasis, in which there is an accumulation in the blood serum of the urio acid salts, due either to increased formation or defective excretion of these products of proteid metamorphosis. The manifold irritations of the different tissues and the accompanying subjective and objective symptoms are termed gouty.

Since the discovery, by Garrod, of the salts of uric acid in the blood serum of gouty patients, the humoral pathology of gout has certainly had more adherents than any of the many other theories. This pathology, based primarily on the chemical theory of digestion and food transformation, proceeds upon the view that every atom of albuminous or carbonaceous food ingested, whether destined for tissue construction, or the direct conversion of potential into active energy, is finally eliminated for the most part, as urea, carbonic acid, and water. This transformation, of course, is supposed to be effected by a process of oxidation, but neither the exact process nor the share of the various organs and tissues in its accomplishment are certainly known. Recent investigations point to the liver as chiefly concerned, not only in the metamorphosis of the carbohydrates, but also in the formation of urea, so that the arrest in the conversion of starches and sugars, resulting in glycosuria, and the check in the metabolism of the proteids, resulting in lithæmia, may both be due to hepatic derangement. The not infrequent association of glycosuria and lithæmia in the same patient, and the frequent alternation of gout and saccharine diabetes in gouty families are significant facts in support of the common origin of these diseases.

The suboxidation theory of gout and diabetes, ably presented by Bence Jones, has much to commend it from the valuable suggestions it affords in the clinical management of these maladies. Nevertheless, while defective oxidation seems to be an essential factor in the production of gout and diabetes, it is impossible to reduce this factor to the simplicity of a chemical equation. All that can be said at present is that the metabolism of food is in its nature a chemical analysis, modified and regulated by vital force, and resulting in the formation of tissue, and the conversion of potential into active energy. Imperfect blood elaboration must depend upon much beside a disturbance of the proper relation between the amount of food ingested and oxygen inhaled, though this must unquestionably be an important factor in its causation. Heredity, and the mysterious influence of the nervous system complicate the problem; so that while it may be maintained that gout is a disease in which suboxidation occurs, it is not possible to tell whether the suboxidation is the essence of the disease, or only one of its phenomena. Indeed, a much more complex process than the simple accumulation of uric acid in the blood is probable. Uric acid, like urea, is one of the normal results of the metamorphosis of albuminous foods and tissues. In birds and most reptiles it is the final issue of this metamorphosis. It has been supposed, as one atom of uric acid can be split by oxidation into two atoms of urea and one of mesoxalic acid, that uric acid was the antepenult of urea. This, however, is by no means proven. In birds, who consume by their rapid breathing an enormous proportion of oxygen, as well as in the slow-breathing reptilia, the nitrogenous excrement takes the form of urates. In view of such divergent conditions, variations in proteid metabolism cannot be explained by varying degrees of oxidation.

When we have said that urea is destined for a fluid, and the urates for a solid excretion, we have exhausted our powers of explanation. Moreover, there are clinical as well as physiological objections to the uric acid pathology of gout. Uric acid salts accumulate in the blood in fevers, in disorders of digestion, and in anæmia; but do not cause either the symptoms or lesions of gout. Todd held that gout might occur without an excess of uric acid in the blood, and it is certain that this is true of the atonic and irregular forms. Again, the diminished power of the gouty to digest farinaceous and saccharine foods, tends to stamp uric acid as an epiphenomenon, rather than the sole exciting cause. The primary indigestion is promptly relieved by restricting the diet largely to albuminous foods. This restriction, furthermore, is one of the surest prophylactics against the recurrence of gouty lesions. It is well known that the fermented liquors are among the most frequent exciting causes of acute gout, and cases are not uncommon in which sweet foods and fruits will provoke well-recognized lesions of the disease. This anomaly in the uric acid theory may possibly be explained by the suggestion of Garrod, that the deposition of the urates is due to their insolubility, and as this insolubility is increased by diminished alkalinity of the serum, that the evolution of acids in the digestion of the carbo-hydrates so lessens the normal alkalinity of the blood, that the uric acid salts are precipitated. But this explanation does not do away with the fact that carbonaceous foods may be as much, perhaps more concerned in the causation of gout, than the albuminous foods. The chemical pathology of gout, in view of the conflicting evidence, seems to be still involved in considerable obscurity.

Recent advances in neuropathology have led many to advocate the theory that gout is a tropho-neurosis. The frequency of purely nervous symptoms in gouty persons is daily observed by those who have much opportunity to study the disease. Any of the functions of the entire nervous system may be affected. Psychical disturbances, as hypochondriases and hysteria; derangements of sensation, as neuralgia and dysæsthesia of every variety; and spasm of both voluntary and involuntary muscles, as cramps, grinding of the teeth, asthma and vesical tenesmus, are met with. Often attacks of gout are determined by purely nervous influences, such as nervous exhaustion, whether caused by overwork or mental anxiety, or the more explosive discharges of nerve force in rage and great emotional excitement. The influence of certain diseases of the nervous centres, such as cerebro-spinal meningitis. Pott's disease and tabes dorsalis, in occasioning gouty manifestations, tend to favor the theory of the nervous origin of the affection. Still, such facts do not disprove the humoral pathology. Healthy nervous action must depend primarily on normal nutrition, and this, in turn, on healthy blood elaboration. It may be that gouty lesions are determined as reflex phenomena through the medium of the trophic centres, if such centres there be, rather than by the direct irritation of the affected tissues by the gouty blood, and it is not unreasonable to suppose that nervous exhaustion may produce in these centres greater reflex excitability.

This brief pathological *résumé* sets forth the theories upon which treatment has been based. Clinical experience, however, does not fully bear out either the chemical or neurotic theory. Whether gout is a tropho-neurosis determining the chemical changes, or whether the chemical changes are primary, and determine the lesions through central or peripheral nerve irritation, are questions impossible now to answer. It is fair,

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however, to say that the treatment based on the neurotic theory is better adapted to the acute articular lesions, while that based on the humoral theory is better adapted to the management of the constitutional vice.

But the suboxidation, whether primary or secondary, it is shown by clinical experience, occurs not only in the nitrogenous, but also in the carbonaceous foods. The treatment of the gouty dyscrasia should therefore insure, primarily, the complete combustion of both these classes of food. The means of accomplishing this result are partly dietetic, partly hygienic, and partly medicinal. The dietetic means consist in the choice of such foods as the gouty patient most easily converts; the hygienic include the maintenance of an abundant supply of oxygen for the thorough conversion of the potential force of the food into the various forms of vital energy, and the medicinal means the use of such drugs as facilitate oxidation, and the elimination of waste products. Leaving the hygienic and medicinal means for the present, the speaker took up the dietetic means.

The dietetic treatment of gout invites a consideration of the quantity and the quality of food best adapted to maintain a healthy nutrition and a proper equilibrium between the potential energy contained in the food and the active energy evolved in its transformation in the body. An approximate estimate only, as to quantity, is possible. The well-fed classes probably always consume more than is perfectly digested. Experiments of various sorts have been made, but none show, except approximately, the amount really required. Moreover, different individuals require widely different amounts; some persons maintain a good degree of health and capacity for exertion with one-half the quantity of food that others require. Excess of food is unquestionably one of the most important factors in the causation of the evils arising from suboxidation. This excess may be positive or relative; positive when it is more than can, by any possibility, be oxidized, relative when it is more than is required by the habits and occupation of the individual. The proper quantity of food is necessarily variable, and must be proportioned to the age of the individual and to the amount and nature of the work to be performed.

Authorities have almost uniformly held that gouty patients should use albuminous food sparingly, and that their diet should consist mainly of non-nitrogenous articles of diet, giving preference to the farinas. This teaching is based on the theory that uric acid is the offending substance, and this being one of the products of imperfect metabolism of nitrogenous foods, such foods should be largely withheld. A personal experience of fifteen years led the speaker to believe that while such may be the logical deduction of the uric acid theory of gout, clinical facts do not bear it out. The non-nitrogenous rather than the nitrogenous foods should be excluded.

Gouty persons, it is well known, have but limited capacity for the digestion of carbo-hydrates, the sugars and the starches. They occasion, in whatever form used, more dyspeptic trouble than albuminous foods, causing the acid and flatulent indigestion with its accompanying reflex disturbances that generally precede the explosion of gouty attacks. What acute observer has failed to notice that the dyspeptic disorders of the children of gouty parents are especially provoked by saccharine and amylaceous foods?

It is impossible to satisfactorily explain why the lithæmic condition should be brought on by the indigestion of carbonaceous food. If, as modern physiology tends to show, urea as well as glycogen is formed in the liver, it may be that over-taxing the functional activity of this organ manifests itself more readily in the incomplete conversion of the nitrogenized than in that of the non-nitrogenized foods. Whatever may be the explanation, however, the clinical fact remains, that the conversion of albuminous food is more complete with a minimum of carbo-hydrates than it is with an excess of them.

The diet in gouty subjects, therefore, is similar to that called for in glycosuria. The exclusion of the carbo-hydrates need not be so complete, however. The degree of suboxidation which checks the transformation of the starches and sugars in diabetes mellitus is greater than that which results in the production of the various acids which are formed in the conversion of starch and sugar into carbonic acid and water. The classes of food in the order of their indigestibility in the gouty diathesis are, first, the sugars; second, the starches; third, the fats. Above all, fermented alcoholic substances are productive of the greatest disturbance. Experience has taught this to the laity, as well as to the profession. There is a striking difference in the effects of the distilled and fermented liquors. Gout is certainly more prevalent where fermented rather than where distilled beverages are used, *e. g.*, it is much more common in England than in Scotland or Ireland. In Russia and Poland, where spirits are more exclusively used, it is said to be rare. Moreover, fermented liquors differ in their tendency to induce gout. The heavier wines, sherry, Madeira, and port, are more mischievous than the lighter wines of France and Germany. Nevertheless, these wines, especially the richer clarets, Burgundies and Rhine wines, frequently give rise to acute gout, and the gouty habit. Malt liquors are unquestionably pernicious as gout producers, especially the stronger English and Scotch ales, and, to a less degree, the lighter English, American, and German beers. Cider is also injurious, as, for example, is shown by its action in certain districts of England. Although acute articular gout is said not to be common in New England, where cider is much used, it undoubtedly develops the irregular forms of gout. The large amount of sugar in cider favors the production of the acid dyspepsia which is a common antecedent in the formation of the gouty dyscrasia. Malt liquors also contain more or less unfermented sugar. These, even the lightest varieties, should be absolutely prohibited. Though beer and ale drinkers are apt to suffer more often and from a greater variety of gouty manifestations than wine drinkers, it may safely be said that the less wine ingested the better. Wines are detrimental in proportion to the quantity of unfermented sugar they contain. Very few contain absolutely none. Some of the light Hocks, Moselles, and Bordeaux wines are said to contain none, and the driest of the dry champagnes certainly contain very little. They, therefore, are the best varieties to allow the victim of gout. But these are not always to be trusted. Most imported clarets contain sugar, and are fortified with alcohol to check fermentation, and they are very often the source of gout in some of its forms. Sherry, Madeira, and port contain the largest proportion of unfermented sugar, and are, therefore, *par excellence*, gouty wines. The safest alcoholic beverage for the sufferer from gout, if he uses any, is a very dilute spirit, and this should always be taken with food—never upon an empty stomach. Sufferers from the regular forms of gout usually learn by their own experience that they should use spirits moderately, if at all, and that they should entirely abstain from fermented liquors; but sufferers from the irregular forms, such as the cutaneous, and mucous, and the innumerable gouty neuroses, not recognizing their ills as of gouty origin, frequently indulge in what they deem the moderate use of beer and wine.

Next to the fermented liquors, the use of saccharine foods should be restricted, as common, no less than

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professional experience dictates. This prohibition sometimes involves abstinence from the sweet and subacid fruits, which are for the most part highly flavored mixtures of starch, sugar, and acid. Paroxysms of articular gout, and more frequently the cutaneous and mucous irritation from which gouty persons suffer, follow indulgence in strawberries, watermelons, apples, and grapes.

The third class of interdicted foods are the starches. These form necessarily so large an element in ordinary diet that their limitation in the regimen of the gouty applies only to their excessive use. This excessive use, however, is often met with, probably because of the common prejudice against animal foods as a cause of gout. The feeble capacity for the digestion of farinaceous foods occurs most frequently in those inclined to obesity, and in those whose occupations are sedentary, or whose lives are largely spent indoors, and in the indulgence of indolence and ease. It is less common in those whom necessity or pleasure lead to much open-air exercise.

The fats are easily digested, according to the speaker's experience, by most gouty dyspeptics—a fortunate fact, since in the anæmic state, which frequently accompanies chronic gout, the fatty foods are of inestimable value. Milk, in persistent and rebellious lithæmia, is one of the best articles of food, and a purely milk diet constitutes a precious resource in cases in which the disease cannot be otherwise controlled.

The succulent vegetables, as tomatoes, cauliflowers, cabbages, asparagus, artichokes, cucumbers, and indeed almost all the vegetables, except such as are purely starchy like potatoes, or starchy and saccharine like squash and beets, may be used with safety.

In conclusion, the principles upon which the diet of gouty persons should be regulated are mainly, in a modified form, those upon which the diet in glycosuria is based. As regards quantity, attention must be paid to the age, habits, environment, and occupation of the individual; as regards quality, to the habits and occupation, and especially to the fact that the ability of gouty persons to digest sugars and starches is always more or less enfeebled. A bill of fare for the gouty dyspeptic is not so uninviting as it might at first sight appear. If he is an out-door worker and accustomed to much muscular exercise, he may need to forego alone the fermented preparations of alcohol, and be able to give free rein to his appetite for all the viands which the animal and vegetable kingdom supply. If he is an indoor worker and engaged in intellectual or the more delicate mechanical occupations, the victim of a limited supply of oxygen and a feeble circulation, he had better not try to live on potatoes and puddings, or to quench his thirst with beer and wine.

DR. HODDEN remarked, in opening the discussion, that he endorsed the views expressed in the paper, especially as regards treatment. An experience of four or five years convinced him that the results of the diet advocated were as had been stated. The restitution of the carbo-hydrates and the free use of nitrogenous foods, had counteracted the evil effects of the gouty dyscrasia in the subacute and chronic cases, which had chiefly come under his management. The urates of sodium were thereby diminished in the blood and urine. The return of the gouty symptoms when the diet was not properly managed showed that there was something more than theory in the views set forth regarding proper feeding. He had given salicylate of sodium several times a day for a considerable time uninterruptedly, but it had had no other effect than to counteract the acidity of the stomach. Comparative study of birds and of the carnivorous and herbivorous animals, was not only interesting but instructive. Gouty deposits are found in the feet of parrots and pigeons. Carnivorous birds kept in confinement show no such deposits. In herbivorous animals, for instance the horse, it is not uncommon to find deposits in the form of the urates of sodium. The disease commonly known as ringbone is due to such deposits. No deposits of the urates are found in cats or dogs. These facts were suggestive and supported the line of treatment recommended in the paper, by the pursuance of which much better results were obtainable than had been met with heretofore by other methods.

DR. M. PUTNAM-JACOBI thought that a statement to the effect that there was a condition of suboxidation, did not correlate the facts in this disease; the facts of heredity, the nervous phenomena, etc., which existed. As to the value of a purely meat diet in diminishing uric acid, she could call to mind many cases which proved it. Before restricting patients to a diet consisting of meat and gluten bread, she determined the existence of an excess of uric acid and urea in the urine by a quantitative chemical analysis. An enormously fat woman under treatment for obesity, being placed upon this strict diet, became so prostrated in the course of ten days that it was thought impossible to continue it. However, by the administration of nux vomica and nitro-muriatic acid, she did continue the diet, with the result of a reduction in weight of forty pounds at the end of a year, together with an increase in strength.

DR. JANEWAY called attention to the fact that where a milk diet is used we are giving a good deal of sugar, and that, too, in a form that will admit of fermentation. If we accepted the neural pathology, we ought to find more nervous patients suffering with the disease. He had examined many joints of nervous patients without finding any trace of it. He called attention to the fact that cases of gout may be determined by an injury or by nervous prostration. On the whole, he was inclined to look with greater favor upon the humoral than upon the neural pathology of the disease.

The PRESIDENT, being called upon for an expression of opinion, said that the views advanced in the paper were so completely at variance with his own that he felt the need of more time for study and reflection before formulating his ideas. He then cited a number of cases, each of which presented contradictory symptoms to all the others, and were relieved or made worse by exactly opposite kinds of remedies. He thought that no one plan of treatment would answer for all cases. It was necessary to study the peculiarities of each case, and be governed accordingly when prescribing.

DR. FLINT thought that the subject under discussion could only be settled by clinical experience. He would feel extremely doubtful in regard to accepting any treatment as final which was based upon pathological views derived from neurology or chemistry. He thought there was another point to which sufficient importance had not perhaps been attached, and that was the element of dyscrasia. There was probably no disease in which dyscrasia played so strong a part as in gout. The hereditary influences should always be sought for. The disease develops at a certain period of life, but the precise reason for this we cannot say.

DR. DRAPER, in closing the discussion, said he had found no difficulty, or at least very rarely, in getting patients to adhere to the diet prescribed. He had not had occasion to make the diet so strict as suggested by Dr. Jacobi. He thought patients who were confined to a diet of that sort would be very apt to become rebellious after a time and require some indulgencies. He had never found any difficulty in adding to this diet green, succulent vegetables, and they certainly contribute greatly to the comfort of the patient. Dr. Janeway's remark in regard to milk was true, and

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this was antagonistic to the theory that gouty patients do not digest sugars. But in giving milk he thought it was necessary to give more or less alkali. When soda was given with milk the latter was well borne, and gave no disturbance. This he supposed was due to the fact that any tendency to acidity was promptly corrected by the soda. The speaker entirely concurred with Dr. Flint in his injunction that this question is to be settled clinically, and in giving the diet he had stated that its good effects could not be explained by pathology or justified by it. He did not think any one could explain why an animal diet agreed with gouty persons, but his experience has shown that it did. He supposed all who had seen much of gout and studied it had met with many such contradictory facts as had been cited by the President. He could see no explanation for many of them, except on the ground of a neural pathology.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, February 1, 1883.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. B. F. BAER read an

ANALYSIS OF TWENTY-SEVEN OPERATIONS FOR THE RESTORATION OF THE LACERATED CERVIX UTERI, WITH SPECIAL REFERENCE TO THE EFFECT ON STERILITY AND LABOR.

In the discussion which followed the reading of Dr. Playfair's paper on "Trachelorrhaphy, or Emmet's Operation," before the Obstetrical Society of London, on March 1, 1882, Dr. Herman, in the course of his remarks, said that "The American literature on the subject consisted mostly of general statements. Few writers had published cases, and the cases were mostly complicated ones." There is some force in these words. But, to avoid a monotonous repetition, it is desirable only to publish such as are strongly illustrative of the class to which they belong, or such as bear directly upon any point which may be under discussion.

In the *American Journal of Obstetrics*, for January, 1883, Dr. P. J. Murphy, of Washington, D. C., makes some "Observations on the Effects of Trachelorrhaphy on Fertility and Parturition," and comes to the conclusion "That repair of lacerations of the cervix uteri is usually followed by sterility." Now, there is no doubt of the truth of this statement, so far as it goes, but I think he ought rather to have said that, in those cases in which sterility followed the operation, that condition also preceded the repair of the cervix in the majority of instances, either as a result of the laceration itself, or of its effects on the uterus and its appendages; and that the operation was not the cause of the sterility, but that it simply failed to cure it.

The only way to arrive at anything like a correct conclusion on this subject, is to take a number of cases (it need not be large), and analyze them, and this I purpose doing with mine.

Of the twenty-seven cases in which I have made the operation, six were either widows, or had reached or passed the menopause, and must therefore be excluded from the analysis. This leaves twenty-one cases to be reported upon in this inquiry. Of these twenty-one cases, thirteen had been sterile from five to sixteen years previous to the operation, and I think, for reasons which I will give farther on, that they ought also to be classed as beyond the probability of becoming pregnant. In the remaining eight cases, pregnancy had occurred within five years, but had resulted in abortion in five. In twelve of the twenty-one cases, from one to five abortions had occurred in each subsequently to the occurrence of the laceration. This gives abundant proof of the ill-effects of the lesion and its results, subinvolution, chronic hypertrophy, cellulitis, oöphoritis, etc., on fertility.

Is the assertion that sterility usually follows, as a result of the operation, correct? I do not think so; provided, of course, that the operation was properly made, that the os was not made too small, and that immediate union followed the coaptation of the parts, so that there was left the minimum amount of cicatricial tissue to interfere with the normal resiliency of the cervix.

The oftener abortion occurs, as a rule, the greater and more persistent will be the histological changes in the uterus and its appendages, which finally result in sterility.

The majority of cases in which the operation has been made have been of long standing, because the operation is new, and there were many old cases of so-called "ulceration" with chronic hypertrophy, waiting ready to be experimented upon with this as they had been before with many other old and new remedies.

Is this last new remedy followed by any greater success than the old in the reduction of the size of a large uterine body, which has become hard and fibrous from connective-tissue hyperplasia? I think not; and hence its failure to cure sterility of long standing, from this cause. But, for the cure of certain cases of hypertrophy of the cervix, inflammation, ectropion and abrasion of the mucous membrane, with their local and remote symptoms, and possibly, even probably, preventing epithelioma, and in the more recent cases for the cure of subinvolution, abortion, and sterility, the operation is an immense stride in advance of the old way of destroying the tissues of the cervix by amputation, or by the application of the hot iron or the potential cauteries. It is an advance, because it restores the cervix instead of destroying it.

The following case proves, I think, that abortion may result from laceration of the cervix, although none of the usual inflammatory consequences of the lesion are present.

Case I.—Mrs. M. L., æt. 30, consulted me in January, 1881. She was delivered of her first child two years previously. The labor was rapid. The child was fully developed and vigorous. There was nothing unusual in the puerperal period, and she seemed to be well. Ten months after the birth of the first child she became again pregnant. Between the second and third months of gestation the product of conception was expelled with little pain, but it was followed by severe hemorrhage. Within three months she was again pregnant, and aborted at about the same time and manner as previously. This was followed within six months afterwards by a third pregnancy, and abortion under similar circumstances. The last occurred about two months before she consulted me. She had absolutely no symptoms of uterine disease, such as leucorrhœa, menorrhagia, and the pain which always results from congestion and hypertrophy of the uterus; and expressed herself as feeling as well as ever she had in her life. There was no evidence, whatever, of syphilitic infection, either in the patient herself or in her husband. They are both robust and well developed.

Examination.—The perineum and vagina were normal. The uterus was in normal position; it was neither congested nor enlarged; but the cervix was lacerated on the left side to a point beyond the vaginal attachment, apparently approaching and involving the fibres of the internal os. On the right side there was a mere fissure only. There was no hypertrophy, eversion, or abrasion of the mucous membrane. The sound passed to a depth of two and a half inches. I expressed the opinion that the lacerated cervix and the abortions

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stood in the relation of cause and effect; and I advised an operation for the restoration of the torn cervix.

On March 10, 1881, I denuded the surfaces, being careful to remove very little tissue, and to freshen the edges as far up towards the internal os as possible. I then placed six carbolized catgut sutures, and clamped them with shot. I used the gut suture here in preference to the silver wire, because, as the cervix was not large, and the tear principally unilateral, there would not be much tension, and for the additional reason that I especially did not want any cutting of the tissues by the sutures, which is more apt to occur when wire is used. Another advantage of gut suture is that the line of union need not be disturbed by the removal of the stitches. On the seventh day after the operation I inspected the cervix through Sim's speculum, and found the sutures all *in situ*, though they were partially absorbed. Union was perfect. Two days afterwards the shot were lying loose in the vagina. There had not been the slightest discharge from the united surfaces since the operation.

On June 3, 1881, the patient reported that she had not menstruated for seven weeks, and there was every indication that she was pregnant. A week later I was requested to visit her. I was much chagrined to find when I arrived that she had aborted. This was very discouraging, but I found some comfort in the character of this abortion. More pain attended the expulsion, and less hemorrhage followed it than on the previous occasions. This I ascribed to the restoration of the symmetry of the cervix, and its better retentive power.

On October 9, 1881, she reported that she was about two months pregnant, and feeling well; and on May 7, 1882, she was delivered at full term of a fully developed healthy boy, after a perfectly normal labor of six hours' duration. Examination two months afterwards revealed not the slightest laceration of the cervix. The mother and child are both well.

Case II.—Mrs. M. R., æt. 21 years, consulted me in May, 1878. She had been delivered eight months before of her first child; the labor being tedious, was terminated with the aid of the forceps. The puerperal period was also tedious, and she had ever since been troubled with pain in the hypogastric and lumbar regions, together with a profuse leucorrhœa. Coition was painful, and followed by slight hemorrhage. She was anæmic, and had lost flesh.

Physical Exploration.—The perineum was slightly lacerated and the vagina relaxed. The cervix uteri was pressing low down on the pelvic floor, and lacerated bilaterally, but to a greater degree on the left than on the right side. The tissues were soft from engorgement, and the mucous lining of the cervical canal greatly hypertrophied, everted, and abraded of its epithelial covering, so that it bled on the slightest touch. The uterine body was likewise congested and tender, The sound gave a measurement of minus three inches.

I treated this patient locally and constitutionally for almost a year, with marked general improvement, and although the local condition would improve, the benefit was only temporary. On April 30, 1879, I made the operation for lacerated cervix, placing seven silver sutures. Perfect union resulted.

Three months after the operation she became pregnant, and was delivered spontaneously at full term, The labor was so easy that delivery occurred before the arrival of the physician. Two months after the labor she called at my office, at my request, and I found the cervix healthy, although there was a very slight fissure on the left side. She stated that she had been well since the operation.

Case III.—Mrs. A. B., æt. 34 years, was sent to me in July, 1880. She had had eight children, the youngest of which was six months of age. She stated that she always menstruated during lactation, and became pregnant when her children were about eight months old. Since the birth of the last child, she had had metrorrhagia every three weeks, lasting one week, and a profuse leucorrhœa for years. She complained of pain in the lumbar region, with a heavy dragging sensation in the pelvis and on the top of the head. She was emaciated, and so pale that she appeared bloodless. She had become hysterical.

Touch.—The perineum and vagina were very much relaxed. The cervix uteri was far back, and presented a nodular surface, the result of three deep rents in its tissue, one of them extending through the centre of the anterior lip, flush with the vaginal junction. There was marked ectropion of the mucous membrane, with abrasion. The body of the uterus was anteverted, and only slightly larger than normal.

I placed this patient upon the "rest treatment" of Dr. S. Weir Mitchell (modified somewhat to suit the circumstances), in addition to the necessary local treatment. Her improvement was very marked, and on October 10, 1880, three months after she first came under my care, I operated for the laceration, and secured immediate union.

Under the date of October 27, 1881, a year from the date of the operation, I find this note in my case-book: "Returns to-day at my request for examination. She has improved so much in appearance that I scarcely knew her, and she states that she has been well since a short time after the operation. The cervix is perfectly normal, and gives no evidence that an operation has been made."

I recently received from my friend, Dr. Wm. L. Taylor, the following note concerning this lady:

"DEAR DOCTOR: In answer to your inquiry regarding Mrs. B., I will state that she was confined six weeks ago. The labor was natural, and if it differed in any way from her former labors, it was more rapid. I examined the cervix to-day, and found the external os patulous, but no laceration."

Case IV.—Mrs. X., æt. 35, who had had seven children and two abortions, the last one nine months before, was sent to me in September, 1880. She complained of pain in the lumbar region, a heavy dragging pain in the pelvis, and very difficult and painful locomotion. These symptoms had been growing in severity for several years. She also had menorrhagia and leucorrhea. *Touch:* Cervix large, soft, and lacerated bilaterally flush with the vagina. Mucous membrane engorged, everted, and eroded. Uterus retroverted but mobile. The sound passed three and a half inches. On February 27, 1881, I closed the rent, placing seven sutures, union immediate. The result on the symptoms was all that could be desired. A letter received a few days ago, in anwer to one of inquiry from me, informed me that this lady is now pregnant.

Here are four cases, in which pregnancy followed the operation, out of the class of eight in which impregnation had occurred within five years previous to the restoration of the cervix. And that there will be more I feel sure, because a sufficient time has not yet elapsed since the operation was made, in some of my cases, to prove that sterility will continue.

That sterility does not result as a consequence of the operation, when the proper precautions are taken to secure immediate union and a normal-sized os, does not this analysis prove? That it will prevent a recurrence of abortion, and cure sterility of recent date, Cases I. and II. give undoubted evidence. That it will fail to cure sterility of long standing, for reasons given in this paper, I am convinced from my own experience. Time, however, may prove that a small percentage of this class will also be benefited in this direction.

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I have selected the following case from the class of thirteen in which sterility had existed more than five years prior to the operation, as strongly typical of the point I wish to illustrate, viz., that the longer the time which has elapsed between the occurrence of the injury and its repair (pregnancy being absent during this time), the greater and more permanent will be the changes in and about the uterus, which almost necessarily result in a continuance of the sterility after the cervix has been restored.

Case V.—Mrs. M. R., æt. 39, consulted me in the fall of 1880. She had had six children, the last one thirteen years before. Her labors were all normal, so far as she knew, except the last. This was complicated by a malposition. The forceps were applied two hours before the delivery of the head, and great traction effort was necessary. The child was so injured by the forceps that it died on the third day after delivery. The patient was unable to be out of bed for nearly three months afterwards, and the bloody lochia continued during two months. She had suffered from menorrhagia ever since, and recently from metrorrhagia every two weeks, at times amounting to "almost a flooding." In the intervals between the hemorrhages, she had a constant and profuse mucous leucorrhœa. She complained of a deep-seated pain in the pelvis, "sawing" in character, with pain in the sacral and lumbar regions and across the shoulders. Coition could not be tolerated because of the pain it induced, and the hemorrhage which resulted.

Examination.—The perineum showed an old laceration of slight extent, and within an inch of the vaginal orifice the finger came upon a large mass of tissue which filled and distended the tube. It was hard and nodular around its border, but softer and rather friable in its centre; and it bled on the slightest touch. It gave me, at first, an impression of epithelioma, and I could readily detect that the cervix was bilaterally lacerated down to the vaginal attachment. The body of the uterus was hypertrophied, indurated, retroverted and slightly fixed from contraction of the broad ligaments. Through the speculum the cervix was seen to be lacerated, as the finger had indicated, and that the softer tissue, which occupied the space between the separated lips, was redundant mucous membrane, which seemed to have united from side to side, leaving a very small opening in the centre, corresponding to the external os. This tissue was dotted all over its surface with whitish spots—Nabothian cysts. The sound passed to a depth of minus four inches, and showed the uterine cavity to be rugous—vegetations of the endometrium. I now punctured the retention cysts, and found that the redundant tissue between the torn and separated lips was riddled with them. So much hemorrhage resulted from the scarification that, to check it, I was finally compelled to tampon the vagina. On the next day I removed the tampon, and found the mucous membrane much reduced and less congested.

I treated this lady during a number of months for the purpose of relieving symptoms, and preparing the parts for an operation on the cervix. The hypertrophy and congestion of the mucous membrane of the cervix and uterine cavity were considerably reduced, the metrorrhagia and leucorrhœa diminished. The uterus became more mobile, and tenderness subsided; but the parenchyma of the cervix and body of the uterus remained sclerotic and unreduced in size.

On February 10, 1881, I closed the rent after denuding the surfaces, and dissecting away a large amount of cicatricial tissue from the sides and angles. I placed eleven silver sutures. Considerable difficulty was experienced in passing the needles through the dense and tough cervix, and I broke and bent several before I succeeded in placing all the stitches. The surfaces did not unite as readily in this instance as is desirable, but union was finally established by granulation, resulting in the formation of a good cervix.

This patient has been entirely relieved of the leucorrhœa and pain of which she complained, but she still has an occasional menorrhagia, and the body of the uterus remains large and hard, the sound entering three and a half inches. As was to be expected under these circumstances, she has remained sterile, but certainly not as a result of the operation.

Dr. Murphy further says: "I fear I shall never arrive at that perfection where it will be given me to appreciate why a laceration of the cervix, by being repaired, will probably prevent cancer of the womb."

I do not wish to discuss this subject here, as I am preparing a special paper upon it, but I would like to say that, if we believe that cancer may develop in consequence of the changes in the circulation and nutrition, which necessarily follow when the cervix is torn, and it seems to me that one need not have arrived at perfection in the art of appreciation to believe that cancer might develop in a field such as was presented in Case IV. previous to the operation, then restoration of the organ ought to prevent cancer.

He also concludes, "That the character of the labor is unusually severe and protracted, and that, in a large percentage, laceration occurs a second time."

That this statement is too sweeping is abundantly proven by the cases I here record. I can believe, where pregnancy has happily followed the operation in a case of long standing, in which the cervix is sclerotic from connective-tissue hyperplasia, and cicatricial from non-occurrence of immediate union, that the first stage of labor might be tedious, and that relaceration might take place. But, suppose relaceration does occur in some cases, is that sufficient reason to deprive the patient of the benefits which usually accrue from the operation independent of pregnancy?

Not long ago I made the operation for the restoration of a lacerated perineum, which extended fully an inch and a half up the recto-vaginal septum, on the person of a lady fifty-one years of age. The laceration occurred twenty-six years before with a severe forceps labor. She had been debarred from the society of her friends, and made loathsome to her husband as well as to herself all these best years of her life. In answer to my inquiry why she had not sought relief long before, she replied that she had done so, but that she had been advised to wait until after the menopause for fear that, in the event of another parturition, the parts would relacerate! Comment on such argument as that is unnecessary.

The comfort which this lady has enjoyed since the rectum and perineum have been restored, causes her to feel far from kindly towards the gentlemen who advised such conservatism.

I have recently delivered two ladies on whom the operation for lacerated perineum was made about three years ago, one by Dr. Goodell, and the other by myself. Relaceration did not occur in either.

DR. GITHENS stated that on June 18, 1878, Dr. A. H. Smith had operated upon Mrs. M., for the restoration of a lacerated cervix; and on July 10th of the same year had performed perineorrhaphy, both operations proving successful. On June 19, 1879, a year and a day after the first operation, he delivered her of a boy at full term, the labor being uncomplicated and easy, and no tear of either cervix or perineum occurring.

DR. E. E. MONTGOMERY remarked that as regards the question of sterility resulting as a consequence of the restoration of a lacerated cervix, he had been operating since 1879, and five of the patients he had op-

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erated upon have since become pregnant. The first patient upon whom he operated became pregnant lately, but aborted; as she had desired not to become pregnant, and was anxious that an abortion should occur, he believed that it had been artificially induced. Another patient, operated upon in 1880, had been delivered in January, 1883, without accident. A patient operated upon in 1879 is now four months advanced in pregnancy; before the operation she had aborted at three months; this accident was apparently consequent upon the existence of the laceration. Of these five cases, two were lacerations of long standing, and three were recent.

DR. CLEEMANN had operated upon one case of nine years' standing. During the first two years of that time she had two miscarriages, and then remained sterile for seven years. The operation was performed eleven months ago, and she is now two months advanced in pregnancy.

DR. A. H. SMITH had heard Dr. Baer's paper with pleasure. The general impression in this city is that sterility is a consequence of the injury, and a large proportion of the cases operated on by him have become pregnant after operation. The fear of the recurrence of the accident prevents pregnancy in many cases, as means are used to avoid that condition. Improved general health and local comfort are a result in a majority of the cases, even where pregnancy does not occur. He would like to hear Dr. Baer's experience about the existence of obstinate nausea in pregnancies after operation upon long-standing cases, accompanied with an enlarged and hardened condition of the cervix. It has been so with him. As regards the result of labor, there has been no tendency to relaceration in the same position. He used inhalations of chloroform and hot-water douches in such cases, and does not rupture the membranes early; he also prevents the patient from bearing down, and by these means secures a slow and safe labor. He is sorry to hear that Dr. Baer has no confidence in the power of the operation to reduce the size of a hyperplastic uterus. He has seen cases of the so-called sub-involuted uterus, after the complete failure of local means, such as iodine, silver nitrate, etc., reduced to one-third of its bulk by operating upon a laceration of the cervix. The rapidity with which the ultimate result of reduction in size is reached is in proportion to the time that has elapsed since the injury.

When the cervix is much hypertrophied, and ectropion exists, such a cervix as would formerly have been called cancerous and would have been amputated, the stitches should be left in a long time. If they are removed too soon there is a proneness to gaping, a sort of ectropion or sprouting. This will not happen if the sutures are allowed to remain thirty or forty days.

DR. WM. GOODELL regretted that he was too late to hear Dr. Baer's paper. With reference to the question of the influence of the operation on causing sterility, he thinks it does have such an influence. He has operated in one hundred and sixty-nine cases, and has only known of seven who have since become pregnant. There were probably more, as the cases have passed away from his knowledge and he has never heard of them again, as he does not practise obstetrics outside of the Preston Retreat. In two of the seven cases, a second operation was required, but it was slight. In one case not the slightest change occurred in the form of the os. As regards the effect of the operation in preventing cancer, he believes it fully, both from experience and from *à priori* reasoning. He has seen but two cases of epithelial cancer in women who have not borne children. In fact his experience has been that the greater number of children, the greater the liability to carcinomatous degeneration, and often the notch of a previous laceration is seen in the cancer. If carcinoma is, as we believe, a local disease at its beginning, what more probable cause could we have than such an irritating sore as a bad laceration of the cervix. In more than one case his principal reason for operating for the restoration of the cervix has been on account of a history of cancer in the family.

Concerning the effect of the operation upon hyperplasia, he believed, with both Dr. Smith and Dr. Baer. There is an element of passive congestion, the result of the irritation of the laceration; and when the cause is removed by the operation, the effect passes away, and the size and weight of the uterus are much decreased. He believes that preliminary treatment in cases of enlargement with ectropion has a very great effect upon the results of the operation. Applications of iodine, glycerine, and tannin, and the use of the very hot douche, and cross-hatching of the enlarged Nabothian glands, have a softening and calming effect. In such cases, if the hard, gristly triangle in the apex of the wound be carefully excised, the tension on the stitches is slight. He generally removes the sutures in about nine days after the operation; in one case, in consequence of circumstances affecting convenience, they were allowed to remain three weeks. When he can secure easy approximation and close coaptation, which is readily done by means of his guiding thread, perfect union is more probable than in any other plastic operation. For his sutures, he uses the finest possible silver wire; it is drawn to order.

As regards the results of the operation on various symptoms that were supposed to arise from the presence of the injury, he has experienced the greatest success and great disappointments. In some, local treatment would have answered every purpose.

DR. A. H. SMITH knows well the value of preliminary treatment and employs it faithfully, but there is a limit to the endurance of a patient; she cannot be kept too long upon her back, and it sometimes becomes necessary to operate before all that is possible has been accomplished. In some cases there is an unavoidable tension, and in others a friable condition of the tissue which is benefited by leaving the stitches in position. He allows the patient to attend to her domestic duties with the sutures *in situ*. In his experience there has been no relation between the number of children and the tendency to carcinomatous degeneration. Such growths have been in women who have had but one or two children only. Cancer of the mammary gland is most common in sterile women or when children have been few. He has rarely seen cancer in its early stages in an enlarged cervix with ectropion, but on the contrary in unnaturally small cervices.

DR. WHARTON SINKLER has three patients who have been operated upon for lacerated cervix, one of them by Dr. Goodell. All of them have since become pregnant.

DR. MONTGOMERY remarked that one-sixth of the cases he had operated upon (within four years) had since become pregnant. He thinks Dr. Smith's suggestion an over-true one. As the injury was the result of pregnancy, the risk must not be run again. In the Philadelphia Hospital he has found cancer of the uterus most common after numerous labors. The same rule has held good in mammary cancer. It has been most common after frequent nursing. Uterine hyperplasia is reduced by operating on the torn cervix. He has operated with this result in view in cases of so-called subinvolution. It has been recommended to divide the cervix, and remove a wedge-shaped piece, reuniting the wound, as a remedy for this condition.

DR. H. BEATES has performed twenty-three operations, and has had two pregnancies since. He has had under his care seven cases of uterine carcinoma,

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and in all of them cervical laceration coexisted. The number of children varied from one to several.

DR. BAER, in closing the discussion, remarked that in answer to a letter of inquiry to the husband of a patient upon whom he had operated to restore the cervix, he received one in which the idea of another pregnancy was scouted with disdain. This is doubtless a more or less general feeling. Patients have not complained particularly of nausea in subsequent pregnancies. Hyperplasia in cases of long standing where the muscular tissue has been replaced by fibrous tissue have remained large, very little or no absorption having been effected. New cases were more benefited where the uterus was more muscular in its composition and the enlargement was due to engorgement.

Sutures were removed in from eight to twelve days; he was afraid to leave them longer on account of fear of irritation and their cutting out. It might be good to leave them longer if a seton effect were desired.

NEW YORK SURGICAL SOCIETY.

Stated Meeting January 23, 1883.

DR. F. LANGE presented a specimen of

DERMOID CYST OF THE RIGHT OVARY,

removed from a patient thirty years of age. It contained a large mass of hair and some bone. One portion presented an appearance almost exactly like a piece of the scalp, and it was from this part that the hair took its origin. There had been a variety of opinions with reference to the nature of the tumor, but for the most part it was regarded as a solid growth, and in close connection with the uterus. At the time he saw the patient it had become quite clearly established that the tumor contained considerable fluid, and that probably the uterus had been entirely crowded to the left side, and that the growth did not have its origin in that organ. It seemed by internal examination that the tumor was situated in the broad ligament. The operation was very difficult in consequence of the absence of a pedicle, and the presence of extensive adhesions. Many ligatures were applied to the adhesions, which were cut in each instance by the actual cautery, and the wounds were powdered with iodoform. Although the operation lasted two hours, the loss of blood was insignificant. The left ovary was also removed, on account of cystic degeneration. It was of about the size of a small hen's egg. Scarcely any reaction followed the operation; at no time did the temperature rise above the normal. He thought that the patient was out of danger. The operation had been performed eight days. It was the second dermoid cyst which he had removed within the last three months. The former was from a girl nineteen years of age. [At the time of this note the patient is out of bed and danger.]

STRAIGHT URETHRAL SOUNDS.

DR. POST presented several samples of straight steel sounds for treating strictures in the straight portion of the urethra. The advantage claimed for them was that they could be used with greater facility than the curved instruments, and that when given a rotary motion they caused less pain. One was fusiform in shape. They measured twenty-five centimetres in length, twenty-seven millimetres in circumference round the bulb, thirty-four millimetres at a distance of seven centimetres from the bulb, and thirty millimetres twelve centimetres from the handle.

A SUBSTITUTE FOR THE TRACHEOTOMY TUBE.

DR. L. A. STIMSON said that since the last meeting of the Society, at which Dr. McBurney read a paper on tracheotomy as a preliminary operation, he had had a patient under his care with a tumor of the superior maxilla, and it had occurred to him that possibly a substitute could be devised for the tracheotomy tube, consisting in a tube to be introduced through the mouth into the pharynx, the space around it to be blocked with sponges in a manner which would prevent the passage of blood into the pharynx, air passages, or œsophagus. After talking the matter over with Dr. McBurney, who had conceived the same plan independently, and following Dr. McBurney's suggestion with reference to details, an apparatus was constructed which consisted of a tube six or seven inches in length, and the diameter of a No. 38 urethral sound, about an inch and a half of its extremity curved to almost a quarter of a circle, and provided with a flange one-eighth of an inch in breadth, perforated with small openings through which threads could be passed. About that curved portion he tied a sponge, stitching it fast to the flange and placing behind it a piece of impervious tissue, in order to favor the retention of such blood as might soak through the sponge. After complete anæsthesia had been produced in the usual manner, the tube was passed into the mouth and carried well down behind the root of the tongue, but it caused so much gagging that it was necessary to withdraw it until it reached only a little behind the uvula, so that the patient still breathed partly through the nose. While the preliminary incision was being made and the flaps directed up, sponges were placed between the teeth, and the packing proved very satisfactory indeed. The patient was able to breathe; anæsthesia was maintained without difficulty through this tube, and although he bled very freely the sponges caught all the blood, and it was only necessary to change them as soon as filled. After the flaps had been dissected and bleeding points secured, the hemorrhage was inconsiderable. During the piecemeal removal of the growth, which included all the right and a portion of the left superior maxilla, and left a cavity which opened into both nostrils and backwards into the pharynx above the soft palate, there was no trouble whatever from the bleeding. Sponges were kept behind the surface of section and caught all the blood. The tumor was an ordinary carcinoma, and the only point concerning it which was remarkable was the fact that it had so affected the gum corresponding to it that a small fragment snipped off for microscopical examination presented all the appearance of epithelioma, even to the completely formed nests of cells. This appearance of epithelioma was due to secondary change of the papillary layer of the gum. The true tumor itself was an alveolar cancer, which had evidently originated farther back and in the substance of the bone.

Dr. Stimson said that he was aware that tubes had been devised to pass into the trachea, but that was not the intention in his apparatus. It was his intention that it should not pass beyond the pharynx. The suggestion was so simple that he thought it must have been acted upon by others, and he had shown the instrument to the Society in the hope that further trials might be made with it which would increase its efficiency.

NECROSIS OF A COSTAL CARTILAGE.

DR. J. C. HUTCHISON presented a portion of the cartilage of the eighth rib, removed from a man fifty years of age, who two years previously had typhoid fever which lasted for a considerable time. Six months later he had two abscesses over the cartilage of the rib, one at the junction of the cartilage with the rib, and the other where the cartilage joined the sternum. A probe reached the cartilage very readily, and during the last

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two months he had been able to push the probe apparently into the cartilage. Lately the patient had suffered considerable pain, especially upon coughing, and Dr. Hutchison determined to remove the diseased portion; which he did by making an incision directly over the cartilage. The perichondrium was separated from the cartilage, and a chain saw carried about it, near the point where it joined the rib, very readily, and he subsequently discovered that there was separation at that point. The cartilage at the point where it joined the sternum was easily snapped off. On examination he found that the disease was confined to the anterior portion of the cartilage. He however removed the portion which remained, so that the entire cartilage was removed. The end of the rib was perfectly healthy. The case was the only one which had fallen under his observation of disease of cartilage of the rib.

NEURALGIA OF THE INFERIOR DENTAL NERVE FOLLOWING FRACTURE OF THE LOWER JAW.

DR. STIMSON narrated a case in which the patient, after the lapse of seven months, suffered from neuralgia following fracture of the lower jaw. The fracture was on the left side, and united with some displacement. The patient returned to him in December, complaining of numbness and sensitiveness in the region of the cutaneous distribution of the inferior dental nerve, and also of inability to properly masticate, because of displacement of the jaw. Dr. Stimson found that the difficulty in mastication was due to depression of the anterior fragment, and he relieved it by gouging away a portion of the posterior fragment which interfered with an upper molar. The union between the fragments was fibrous, and a temporary increase of the slight mobility followed the operation. The pain increased afterward to such an extent, although it was temporarily relieved by the use of an interdental splint, that the patient returned, and demanded some operation for her relief; pain upon pressure over the mental foramen was acute, and also along the course of the inferior dental nerve before its entrance into the canal. He exposed the nerve before its entrance into the canal by the usual incision within the mouth, and raised it up and divided it. He desired to exsect a portion, but was unable to hold it with the forceps so as to remove a portion. Relief was immediate and complete for perhaps ten days, but sensitiveness then again began to return in the region of the nerve, just where she formerly complained of it when the mental foramen was pressed upon.

DR. HALSTEAD referred to a case in which he excised about one centimetre from the inferior dental nerve. The neuralgia was severe, but relief was given; he found exsection of a portion of the nerve very difficult to perform.

DR. STIMSON referred to a case in which Dr. Sabine had divided the inferior dental nerve for the relief of neuralgia, and in which Dr. McBurney subsequently removed a portion of the nerve. The excision was followed by a cure which existed for one year.

DR. HUTCHISON referred to two instances in which he succeeded in curing obstinate neuralgia by ligature of the carotid artery.

DR. LANGE referred to a case already reported to the Society, in which the patient had had a variety of operations performed, with a varying amount of relief, but permanent relief had not yet been obtained.

DR. STIMSON remarked that the traumatic origin of the neuralgia in his case, seemed to him to be sufficient to justify the division of the nerve above the point of irritation.

NEW INVENTIONS.

A MODIFICATION OF JARVIS'S ÉCRASEUR, AND AN INSTRUMENT FOR REMOVING NASAL POLYPI.

BY FRANCKE H. BOSWORTH, M.D.,
OF NEW YORK.

IN the report of a paper on "Tumors in the Nasal Passages," read before the New York Academy of Medicine on January 4th (see THE MEDICAL NEWS, January 13, 1883), reference was made to two new instruments, the illustrations of which are herewith presented.

Fig. 1 represents a modification of Jarvis's snare écraseur, by which it can be used in the vault of the pharynx for the removal of adenoid growths, fibromas, and other neoplasms. It is to be fitted with No. 5 steel

FIG. 1.

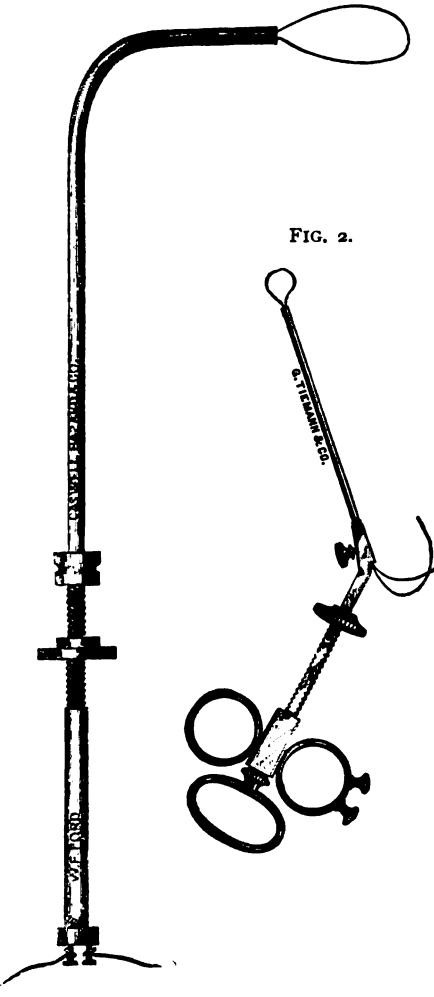

FIG. 2.

piano wire, the loop being prepared of such a size as an ocular inspection of the growth shows will easily embrace its circumference. The loop should be first bent backward from the handle, and to a right angle with the orifice of the tube. The wire is then played out about an eighth of an inch, and the wire again bent sharply toward the hand, and to a right angle.

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In this position the loop can easily be passed behind the palate and to the pharyngeal vault. The action of the kinks given the wire will now be seen. As the hoop is drawn into the tube by the screw, it is thrown sharply and firmly back against the growth, and made to embrace it, while at the same time it engages the mass and severs it. The steel wire is so firm and resisting that it can be thrown with considerable force against even a broadly sessile growth, and made to engage it. I have used this device in a very large number of adenoids, as well as in fibroid and sarcomatous tumors, with such unvarying good results, that I regard it as by far the most satisfactory instrument in use for operating in the pharyngeal vault.

Fig. 2 is an instrument for use in removing nasal polypi. The Wilde snare in its day was the most thoroughly surgical instrument for operating upon these growths in use. The snare, however, merely embraces the pedicle of a polypus and wrenches it out by evulsion. The principle involved in the écraseur is that the pedicle is embraced and severed by écrasement. In this procedure the whole growth is removed, and at the same time some of the connective tissue fibres are drawn out from the mucous membrane; thus no polyp tissue remains from which a new growth may develop. In Jarvis's instrument—being straight—the hand interferes with inspection in such a manner as to hamper the manipulation. The instrument shown is a combination of the écraseur principle with that of the snare; a modification of Jarvis's and Wilde's instruments, in which the manipulation of the loop is entirely under ocular inspection during the operation.

CORRESPONDENCE.

THE EXPLANATION OF THE NEW YORK CODE.

To the Editor of THE MEDICAL NEWS.

SIR: I assume (perhaps erroneously) that you would not intentionally misrepresent the New York State Medical Society, that you might misconstrue, or be misinformed, but not willingly misrepresent; and therefore send you the thoughts which prevailed in that Society, and determined its action upon the question of the Code of 1882.

The people, through the Acts of 1806, 1857, and 1865, and their various amendments, announce, that they now have, and forever reserve to themselves, the right to declare, who shall exercise the rights and privileges of physicians in this State.

The Medical Society of the State of New York reaffirms the declaration of the Code of 1882, that the official formula of the official Society of the medical profession should accord with the laws of the State, the will of the people, the law-making power.

The Code of 1882 says that it is unwise for the medical profession of the State of New York, to attempt to misstate or misrepresent any portion of the medical law of the State, by which that profession is governed, and therefore does not attempt to deprive members of the profession of 1857 and 1865, of their rights as physicians.

We say that the people have said that those men are physicians, and we say nothing more. We endorse no societies, we endorse no men, no practices, and no doctrines. We simply maintain our right to give our advice whenever and wherever the people want it.

The American Medical Association asks us to make war upon the State of New York, and our Society votes that it has no relish for such an enterprise.

The above were the prevailing sentiments of the recent meeting, and by comparing them with your editorial in THE NEWS of the 10th inst., you can easily see how fairly you represent the situation.

Sincerely yours,

H. R. HOPKINS.

BUFFALO, Feb. 13, 1883.

[We thank our correspondent for his courtesy in parenthesis, but being still not in his mental attitude on this subject, must risk further charges of misrepresentation. Some new line of argument was needed on his side of this movement, and this one is new. Were the statements upon which it is based, and which are given as facts, somewhat nearer to being facts, the argument would have more force. When the real facts are better considered by our correspondent, he may find that his charges of misconstruction apply better to himself.

The Acts of 1806, 1857, and 1865, and their various amendments, were not made by the people, nor at the suggestion of the people, but by the petition of the bodies whose interests they represent, for the regulation and incorporation of these bodies, and for the welfare of the people through the suppression of irregular practice and quackery, and to invoke them now in support of a levelling affiliation is to misconstrue them, because it reverses their original purpose and intent. They are all laws of the people, deriving their powers from the people for the good of the people. But they originated not with the people but in the bodies they incorporate, and, as they one after the other traverse each other, as far as the good of the people is involved, they are inoperative, excepting, perhaps, the original one, which, though emasculated, was never repealed. This law of 1806, "for the purpose of regulating the practice of Physic and Surgery," incorporated the medical profession of the State "to contribute to the diffusion of true science," and hence it was for the *regular* profession.

The law of 1857 was "To incorporate Homœopathic Medical Societies," and that of 1865 was for the incorporation of Eclectic Medical Societies, and nothing is said in either of these two simple acts of incorporation about the purposes for which they were incorporated, but they are based upon the original law of 1806, and have "All the powers, privileges, and immunities now conferred by law upon the State Medical Society," and county medical societies. The purpose, so far as the welfare of the people is concerned, is the same in all three, namely, to suppress irregular practice or quackery through the incorporate existence of "true science." Therefore, as to each one the other two became irregular, or are based on untrue science—that is, quackery—and, as each one contradicts the other two, two must be void, for the people cannot enact laws to their own hurt, and the powers granted reside only in the first or original law.

Now, if the Code of 1882 attempts to harmonize these three conflicting laws by bringing into force the two inoperative ones, it is equally objectionable from the standpoint of any one of the three, and its action is impossible from the standpoint of greatest good to the people as the law-making power. Beside, the people have not said that all "those men are physicians." They have said, in the first law of 1806, that *these* are physicians, and constitute the profession, and are to be regulated for specific purposes as stated; but the others are simply incorporated for purposes not stated, but with the powers and rights of other corporations.

When the advocates of this no-code movement say they endorse no societies, no men, no practices, no doctrines, this can only be true in the sense that by demolishing all differences that have hitherto existed between societies, men, practices, and doctrines, they

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really endorse all. What the progress of truth has differentiated from error, they destroy, and substitute a communism; and this, like all other communistic license, is done in the name of "liberty" and "the people."

The American Medical Association has not asked "us" to make war upon the State of New York, even by implication, for it has asked nothing at all. It is a voluntary association, like all others would soon have to be if official legal existence was permitted to dragoon them into unwholesome and incompatible fellowship, and as a voluntary association it simply declined an incompatible fellowship; therefore, the votes of "no relish" were rather irrelevant.

As the line of argument of our correspondent was not reported from the late meeting of his State Society, we are at a loss to know how he ascertained that it was the prevailing sentiment. We hope he may be mistaken.—ED.]

THE ETIOLOGY OF SWINE PLAGUE.

(*Infectious pneumo-enteritis of the pig, Klein; le rouget ou mal rouge des porcs, Pasteur.*)

To the Editor of THE MEDICAL NEWS.

SIR: In a recent communication[1] (December 4, 1882) to the French Academy, Pasteur gives the following summary of results obtained in an experimental research relating to the above-mentioned disease:

"I. Swine plague (*mal rouge des pores*) is produced by a special *microbe*, which is easily cultivated outside of the body of the animal. It is so minute that it may easily escape observation, even the most attentive. It most nearly resembles the *microbe* of fowl cholera, its form being that of the figure 8. But it is smaller and less easily seen, and differs essentially from the *microbe* of fowl cholera in its physiological properties. It has no action upon fowls, but kills rabbits and sheep.

"II. When inoculated in a pure condition into pigs, in quantities almost inappreciable, it promptly gives rise to the disease and to death, the symptoms being the same as in spontaneous cases. It is especially fatal to the white race (improved breed, most highly valued by those who raise pigs).

"III. In 1878 Dr. Klein, of London, published an elaborate research upon this disease,[2] which he calls infectious pneumo-enteritis of the pig; but this author has been entirely mistaken as to the nature and properties of the parasite. He has described a bacillus with spores as the *microbe* of this disease, which he describes as being even larger than *Bacillus anthracis* (*la bactériche du charbon*). This is very different from the true microbe of swine plague, and has no relation to the etiology of the disease.

"IV. After assuring ourselves, by direct proof, that the disease does not recur, we have succeeded in inoculating it in a mild form, and the animal has subsequently proved to be protected against the malignant form of the disease."

Néguin[3] and Salmon[4] had previously reported their failure to find the bacillus of Klein in the blood and other infectious fluids obtained from animals sick with this disease, and the constant presence of a minute micrococcus apparently identical with that described by Pasteur.

The experimental study of the last-named writer is an admirable one, and would doubtless have attracted more attention, both at home and abroad, if the work had been done anywhere else than in America. "Can any good thing come out of Nazareth?" I have seen no reference to this work in the medical journals, although the original research of Dr. Klein was extensively noticed, and was considered by many as establishing the parasitic nature of the disease in question. This deduction is sustained by Pasteur's investigations, but there can be little doubt that Klein overlooked the real parasite, and that his bacillus was developed *post-mortem*, and had nothing to do with the virulent properties of the fluids in which it was found.

Dr. Salmon says: "Virus sent me by Dr. Detmers in a liquid form still contained many such *bacilli* as he has described, and also a considerable number of both oval and spherical particles, which I considered as bacteria spores. But inoculation proved that this liquid was no longer a virus, that it had lost its activity by putrefaction, *though the septic rods supposed to be peculiar to the virus were still retained* and by their movement demonstrated their vitality. Again, cotton saturated with pleural effusion and dried by the same gentleman, was placed in a clean beaker and moistened with distilled water; in less than an hour this water swarmed with *bacilli*."

In warm weather putrefactive organisms develop with astonishing rapidity in the blood and tissues of animals dead from any acute infectious disease. These organisms are constantly present in the intestine of healthy animals in vast numbers, and it may be that in these diseases, owing to the very slight vital resistance offered in the last moments of life by the mucous membrane of the intestine, to the dilatation of its capillary bloodvessels, and to loss of its epithelium, putrefactive bacteria find their way into the almost stagnant blood in the mesenteric veins, and even into the general circulation before life is extinct.

Be this as it may, the rapid *post-mortem* development of these organisms after death from any septic disease cannot be questioned; and one who undertakes to pursue etiological investigations is likely to be misled, notwithstanding that he may be an accomplished pathologist and a skilful microscopist, unless he resorts to methods which enable him to exclude with certainty this source of error, as well as that arising from the presence in the atmosphere of the germs of these same organisms.

Dr. Salmon has given an account of his method of collecting blood from the veins of an animal just killed, in hermetically sealed and sterilized—by heat—glass tubes. (*Loc. cit.*, p. 396.)

The method seems to the writer to be entirely trustworthy, and the record of experiments made inspires confidence in the scientific accuracy of the observer.

Blood drawn from the veins of a pig affected with swine plague, into these "capillary vacuum tubes" was quite free from bacilli at the end of ten days. But this blood swarmed with micrococci, single, in pairs (Pasteur's figure 8), in chains, and in zoöglœa masses.

Healthy pigs inoculated with this blood sickened at the end of seven days and exhibited the characteristic symptoms of the disease. These inoculations did not, however, produce a fatal form of the malady, and Dr. Salmon found it "impossible to carry the virus beyond a second generation, even by inoculating pigs which had never before been exposed to the contagium.

Inoculations with cultivated virus, containing the micrococcus in abundance, produced a discoloration of the skin, and a slight eruption; but the symptoms were not sufficiently definite to enable the experimenter to say with certainty that the inoculated animals suffered a mild attack of the disease.

It is to be hoped that the Agricultural Department will continue to foster experimental studies of this kind and that Dr. Salmon may have further opportunities for the study of this and other infectious diseases

[1] Comptes rendus, t. xcv. p. 1120.
[2] Quart. Jour. Microscop. Science, April, 1878.
[3] Recueil de Méd. Vét., 1880, pp. 36 and 37.
[4] Annual Report Department of Agriculture, 1880.

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among our domestic animals. No doubt liberal appropriations can be obtained for this purpose on account of *pecuniary* losses which our agricultural *voters* suffer from these diseases.

Respectfully,

GEORGE M. STERNBERG, M.D.,
Surgeon, U. S. Army.

FORT MASON, SAN FRANCISCO, January, 19, 1883.

THE EFFICACY OF CARBOLIC ACID IN ODONTALGIA.

To the Editor of THE MEDICAL NEWS.

SIR: Feeling it to be the duty as well as the privilege of every physician to make known to the profession the utility of any agent which he may have found beneficial in relieving pain or curing disease, I send you my experience in relation to carbolic acid as a remedy for toothache arising from caries.

About three months since I was distracted with toothache for about twenty hours, during which time I tried all the known remedies, but in vain. At last it occurred to me to try pure carbolic acid, and although at first I felt a little diffident, having never heard of its use in this way before, I applied it, and, to my great relief and agreeable surprise, the pain ceased instantly, and did not return.

Having to deal with a large number of the poor in my dispensary practice, I have rejoiced in being able to afford similar relief to many sufferers. One poor woman, in an advanced state of pregnancy, had not enjoyed a night's rest for nearly two months; but after a little patient application I was able to send her away rejoicing, and I have not heard of the tooth troubling her again.

Desiring that others may share in the luxury of *doing good* in this way, as well as receiving relief, I append the *modus operandi* adopted.

1st. Clean out and dry, by means of absorbent cotton, the cavity of the tooth.

2d. Apply the acid thoroughly in the following manner: Take a piece of *wood*, according to the size of the cavity (a toothpick or a match will do), and dip the end into carbolic acid—*full strength*; should the hole be very large, a very small portion of cotton may be twisted around the end of the piece of wood. Care is required not to touch the surrounding tissues. It is scarcely needful to add that the acid crystals only need to be warmed to render them soluble.

The foregoing applies especially to odontalgia cariosa, and to odontitis; but it will also prove serviceable where the fangs of the tooth are affected, especially if they are accessibly exposed. I am, dear sir,

Yours respectfully,

GEORGE D. DOWKONTT, M.D.,
Med. Supt. N. Y. Medical Mission.

NEWS ITEMS.

WASHINGTON.

(*From our Special Correspondent.*)

AMERICAN PUBLIC HEALTH ASSOCIATION.—On Friday, February 16, the Executive Committee of the American Public Health Association met at the Naval Museum of Hygiene, in Washington, D. C. It was decided that the principal topics for discussion at the next meeting of the Association should be—1. The best methods of collecting and publishing vital statistics. 2. The etiology of malaria. 3. Food preservation and adulteration; and, 4, the physics of house drainage. The next meeting of the Association is to be at Detroit, and the time fixed by the Committee is the second week in November, which seems rather late in the season for that locality.

TROY, N. Y.

(*From our Special Correspondent.*)

THE RENSSELAER COUNTY MEDICAL SOCIETY AND THE NEW CODE.—At the stated meeting of the Rensselaer County (N. Y.) Medical Society, held on February 13th, the Society voted to stand by the Code of the American Medical Association and elected delegates to the Association. The County Society thus takes open issue with the State Society.

CHICAGO.

(*From our Special Correspondent.*)

THE CHICAGO TRAINING SCHOOL FOR NURSES has issued its second annual report, showing a satisfactory progress. The school began in 1881, has now twenty-three admitted pupils, and eight on probation, employed in seven wards of the Cook County Hospital. The staff of the hospital expresses its full satisfaction with the conduct of the nurses. The institution is soon to have its own home in a building now in the course of erection in the vicinity of the hospital.

FLORIDA.

(*From our Special Correspondent.*)

THE YELLOW FEVER AT PENSACOLA.—An epidemic of yellow fever prevailed in Pensacola and vicinity during the summer and autumn, 1882, about 2,400 cases of the disease, with nearly 200 deaths, being recorded within the 86 days of the scourge.

The naval reservation, containing some 1,600 acres, is situated on Pensacola Bay, about four miles to the southwest of the city. It had a population of some 1,700 people during the fall, and although the disease spread through the surrounding country, so as to include the station named, not a case of the fever appeared within its limits, owing to non-intercourse—an armed picket-line keeping out all persons from August 28th until November 23d, when frost came to the relief of all concerned.

Upon the official announcement—August 28th—that yellow fever existed in Pensacola, the unacclimated officers, with two exceptions, and all their families, as well as the marines, left the yard for other parts, agreeably to the recommendation of the senior medical officer of the station. As the marine guard consisted in the main of recruits enlisted at the north, and who were not even inured to a soldier's life, it was judged prudent not to place them on picket duty. Moreover, from experience gained in past epidemics of the said fever at this station, as recorded in official and other reports, it is known that the marines were among the first to be seized by the disease. At all events, it was thought wise to get rid of this element of danger at the outset.

The employés of the yard, numbering about eighty men, all acclimated, were immediately organized into a cordon, and placed around the entire reservation, with orders to permit none to enter the lines, upon any pretext. The said line was over four miles in extent, more than half being water-front, and thus easily guarded. At first these sentinels were without any shelter, save what could be obtained from hastily improvised structures of bushes, and there was, necessarily, some irregularity relative to their reliefs. But in a few days *A* tents were pitched along the lines, and a swath some thirty feet wide was cut through the woods and thickets, to give an unobstructed view, as well as a clear beat. The roads for the most part

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were blockaded by abatis, to prevent thoroughfare. A part of the regular watchmen of the station were encamped on the road communicating with Pensacola at the extreme northeasternmost extremity of the reserve, and here the incoming mails were fumigated, and the outgoing bags delivered.

On the 16th September, by request, the citizens of the reservation volunteered to come to the aid of the naval authorities, to help maintain the cordon; and to this end all the males above the age of sixteen years were enrolled for picket duty, to the number of about four hundred. No one was excused from this service, unless some physical disability prevented locomotion. All officers had to stand guard, or pay a substitute, no exceptions being made.

The posts were systematically numbered. Each day, those whose turns of duty had come were notified of the fact, and two men were told off for each post. These pickets were allowed to arrange to suit their own convenience as to how they would stand their twenty-four hours' guard. All the sentinels were visited at stated times, day and night, by officials appointed for this work. As all the guards had interests at stake, in protecting their families and friends from the enemy, no great trouble was experienced in keeping the men up to the work. However, when the disease began to spread in the neighborhood of the lines, there were some annoyances and difficulties in maintaining the quarantine inviolate, as a part of those who had taken refuge in the immediate vicinity when the malady was first made known as in Pensacola, now desired to return to their homes on the reserve, for greater safety. Of course, this could not be permitted; and thus a conflict of interests arose. But the quarantine was held, in spite of all the attempts to break it.

As the station was thus effectually closed against the surrounding country, and in its turn was cut off from all the world—save by sea—the only avenue by which to obtain provisions was from Mobile, some seventy miles distant. Upon several occasions, the board of health of that city, upon receiving a certificate from the surgeon of the naval reservation that there was and had been no case of yellow fever, and no symptoms of any contagious or infectious disease within the cordon, and that a rigid quarantine was maintained against Pensacola and vicinity, permitted a steamer to visit the station, for the sole purpose of supplying provisions. Had the said authorities refused to grant this boon, the quarantine could not have been kept up, as the inhabitants would have been starved-out early in the fall.

Three times during the blockade rumors circulated that the malady had appeared among the pickets and others, but happily such was not the fact, congestive remittent fever being the disease which gave rise to these reports and the attending uneasiness. It may be stated that the epidemic, as it existed in Pensacola, was by no means the mild type, as is generally supposed by those who know of it merely by reading the daily or common reports. In point of fact, the opposite is the truth; the statistics, as now published, to the contrary notwithstanding. From Aug. 10th, the date of the first appearance of the fever in Pensacola, until August 28th, inclusive, when the disease was officially made known, and the city was shut out from the rest of the country, a large portion of the unacclimated populace made its escape, with or without the advice of the board of health.

Now, of the stated 2,400 cases, fully one-half were among the colored residents, of whom only one per cent. died. Of the white inhabitants, many of whom were Germans and Italians, too poor to get away, a majority were seized with the disease. It is safe to say that, with very few exceptions, all those unprotected by a former attack of the affection, suffered its presence personally. Of those who had had the fever, and were attacked again, all recovered. With the Germans the percentage of mortality was over seventy, and among the Italians it was a little less. The newcomers, in general, suffered to the extent of over forty-five per cent. From the fact that the colored population was so generally taken with the fever, it is judged by competent authorities present that the type of the disease was malignant.

It is quite evident, to those who have studied the history of the epidemic, that the malady was brought to Pensacola by infected shipping, through the lazaretto of the city. It is thought that the precise way it reached the shore there can be given positively, with all the dates and figures necessary to convince all interested of the fact. And it is believed there that, with a proper quarantine, yellow fever will no longer be the bugbear of that beautiful bay.

WINNIPEG, MANITOBA.

(From our Special Correspondent.)

THE medical men of this city have organized a medico-chirurgical society with Dr. Lynch *President*, Drs. Whiteford and Codd *Vice-presidents*, Dr. Covernton *Secretary*. *Council*, Drs. O'Donnell, Patterson, Jack, Brett, Philip, and Kerr.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—The Board of Trustees held a meeting in Chicago, on January 17. A majority of the members were present, and communications relating to the more important questions to be discussed were received from all the members not present. After a full examination of the whole subject, it was unanimously decided to report to the next meeting of the Association in favor of the establishment of the proposed journal. Steps were also taken to have all the preliminary arrangements so far matured that the first issue of the journal could be made within thirty days after the next meeting, provided the Association should adopt the recommendation of the Board. While the members of the Board were satisfied that the present number of returned pledges afforded a safe basis on which the Association might commence to publish the journal, they deemed it very desirable that more should be added to the list before the time for making their report, that there might be no reason for doubt or hesitation on the part of the Association when it should be called upon to take final action on the subject.

THE APPROPRIATION FOR THE PREVENTION OF THE SPREAD OF EPIDEMIC DISEASES.—The Sundry Civil Bill as reported to the House contains a clause appropriating $100,000 in aid of State and local Boards of Health in preventing the spread of epidemic diseases. Mr. Manning offered an amendment providing that the money shall be expended under the supervision of the National Board of Health. Mr. Ellis, of Louisiana, in opposing the amendment expressed his opinion that the National Board of Health was the most stupendous humbug and fraud ever created, and quoted from its own report to show that it had made misexpenditures of the public money. He could bring home to that Board a deliberate attempt to create rumors of yellow fever in New Orleans.

Mr. Dunn, of Arkansas, advocated the amendment, and declared that the Louisiana State Board of Health concealed the existence of pestilence in New Orleans, and was willing to peddle death through the country in order to keep up the commerce of the State. Mr. Manning defended the National Board of Health from

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adverse criticism, and reflected upon the Louisiana State Board, attributing to it in great measure the yellow fever epidemic of 1878. After further discussion the amendment was lost.

THE NAVAL MEDICAL SOCIETY.—The officers of the Medical Corps of the United States Navy, have formed a Medical Society, which will hold meetings on the first Thursday of every month in Washington.

At the annual meeting held January 4, 1883, the following officers of the Society for the current year were elected:

President.—Albert L. Gihon, M.D.
Vice-President.—John M. Browne, M.D.
Secretary.—James M. Flint, M.D.
Business Committee.—Thomas J. Turner, M.D., Adolph A. Hoehling, M.D., Thomas H. Streets, M.D.

THE AMERICAN JOURNAL OF OTOLOGY.—The suspension of this publication is announced.

A CÆSAREAN OPERATION PERFORMED BY A PRIEST.—M. BLOMME, according to the *Lyon Méd.*, January 28th, the *curé* of St. Amand, Belgium, was called to one of his lady parishioners who seemed on the point of death and was far advanced in pregnancy. Seeing that the woman was lost, and having in vain sought for a medical practitioner or midwife, he resolved to remove the fœtus himself, and succeeded in extracting twins—the subject of the operation having in the meantime died. He was proceeded against for illegal practice of medicine, but the case was dismissed, and an appeal being made to the Tribunal at Ghent, it confirmed the acquittal of the accused, on the ground that what he had done did not come under the operation of any penal law. The Procureur-Général of the Ghent Appeal Court gave notice that he should take the case into the Cour de Cassation.—*Med. Times and Gazette*, February 3, 1883.

COMPULSORY VACCINATION IN GERMANY.—DR. ROBERT KOCH has expressed himself strongly in favor of the present movement in Germany, which proposes compulsory vaccination. He thinks the dangers of transmitting syphilis and scrofula are almost infinitesimal.

STATUE TO DARWIN IN FRANCE.—Acting on the proposition of M. de Quatrefages, the Academy of Sciences of France have authorized the opening of a subscription for the erection of a monument in honor of the memory of Charles Darwin.

AN ARMY MEDICAL BOARD has been ordered to assemble at the Army building, corner of Houston and Greene Streets, New York City, New York, March 1, 1883, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the Medical Corps of the Army, and will probably continue in session about three months.

All candidates for appointment in the Medical Corps must apply to the Secretary of War for an invitation to appear for examination. The application must be in the handwriting of the applicant, must state date and place of his birth and place and State of which he is a permanent resident, and must be accompanied by certificates based on personal acquaintance from at least two persons of repute as to citizenship, character, and moral habits. Testimonials as to professional standing from professors of the medical college at which they graduated, should also accompany the application if they can be obtained. The candidate must be between twenty-one and twenty-eight years of age (without any exceptions), and a graduate of a regular medical college, evidence of which—his diploma—must be submitted to the Board.

Further information regarding these examinations and the nature thereof, can be obtained by addressing the Surgeon-General, U. S. Army, Washington, D. C.

NATIONAL BOARD OF HEALTH.—At a meeting of the Michigan State Board of Health, at Pontiac, Michigan, February 1, 1883, the following resolutions relative to the National Board of Health were adopted:

Whereas, The work of the National Board of Health has been seriously crippled by reducing its appropriation and by transferring to another branch of the government service important parts of its legitimate work and means of usefulness,

Resolved, That in our opinion, no other government service is so well qualified to perform the health service of the United States as is the National Board of Health, which has shown by its works its ability to do what was assigned to it, and to gain and retain the confidence of sanitarians throughout this country.

Resolved, That we consider it of the highest National importance, as also of great importance to this State, that the National Board of Health shall receive annually an appropriation sufficient to enable it to carry on the important work of protecting the country from the introduction of contagious diseases; of collecting and distributing, for the guidance of State and local boards of health, information relative to the prevalence of diseases, and particularly of contagious diseases; of investigating by specially qualified experts the obscure causes of diseases; and of publishing to the world the results of its studies and investigations, more especially concerning diseases which, like diphtheria and smallpox, spread generally throughout the country.

Resolved, That a copy of this preamble and resolutions be forwarded to each member of Congress from this State.

The Illinois State Board of Health furnishes the following memorandum of the work performed by the National Board as an argument for its continuation: The National Board of Health has demonstrated the value and efficiency of the national authority in the protection of the public health. By initiating a reform in the principles and practice of maritime quarantine, which, so far as it has been carried out, has resulted in securing the largest measure of protection against the importation of foreign pestilence on the one hand, whilst, on the other, it relieves commerce from the arbitrary, and often dangerous, detentions, with their consequent costly charges and exorbitant fees, which obtain under the old system, still largely in vogue.

By its service of sanitary inspection and supervision of immigrants and of inland transportation by river and rail, whereby the introduction and spread of smallpox and yellow fever have been effectually controlled; the barbarities of the "shot-gun quarantine" abolished; and commercial confidence, business interests, and travel and traffic protected against needless interruptions and loss through panic and unfounded alarm.

By its researches and investigations into the cause of yellow fever, diphtheria, malarial, and other diseases; into the adulterations of food and drugs; into the sources of, and remedies for air, soil, and water pollution; and into many other problems of sanitary science and preventive medicine, the results of which are already utilized by sanitary engineers, legislators, medical teachers, physicians, and others in promoting human comfort and well-being, in preventing disease and in saving life.

By demonstrating the feasibility of so dealing with

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an infected locality—by temporary depopulation, isolation, and sanitary supervision of its relations with exposed communities—as to secure the prevention of spread of the infection; the limitation of its ravages to the fewest number of victims within the locality itself; and the minimum of disturbance to the interests of threatened regions.

By its relations to State and local boards of health, through which have been secured coöperation and uniformity of action, without regard to State and local boundaries or jurisdiction, to the great advantage of common carriers and other agents of commerce, and to the more efficient protection of the public health; and through which, also, State and local boards have been relieved, *pro tanto*, from the necessity and expense of guarding against the invasion of disease from without—a necessity for which such boards, unaided, have neither adequate authority or means.

WHAT IS SAID OF THE NEW YORK CODE.—"The net result is to impress the mind with a sense of the predominance of the commercial over the professional or scientific elements of the practice and pursuit of medicine.—*Boston Medical and Surgical Journal.*

"The disaster at Albany is due to a cause which has carried many ignoble measures in our State and municipal affairs, viz., a reluctance on the part of our ablest scientific men, who otherwise mould professional sentiment, to engage in heated controversial discussions. The meeting at Albany was not representative. The leaders of medical opinion and the acknowledged scientific authorities in New York should have been in person at Albany. The one hundred and two who protested in writing should have protested by so many votes.—*Louisville Medical News.*

"We sincerely trust that the action taken may prove to be wise, and that its effect may not in the long run act as a bar to the affiliation of our State Society with those bodies that formerly worked in harmony with it. —*New York Medical Journal.*

"The matter can now be safely left where it is. We may be permitted to say, however, in the greatest courtesy, that the present action of the Society conclusively shows that New York State is determined to take care of its own ethical affairs, and resents meddlesome interference from outside influences."—*The Medical Record.*

WHAT THE NEW YORK CODE WILL LEAD TO.—The *Maryland Medical Journal* for February 15th, concludes an editorial on this subject, as follows: "As for those members of the New York profession who still show allegiance to the National Association, but one course seems open to them, and that is to withdraw from the seceding body and organize a new society, which would join with the other State societies in upholding the principles which alone can maintain the honor and respectability of our profession in their complete integrity."

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending February 10, 1883, indicate that diarrhœa, scarlet fever, and diphtheria have increased, and that neuralgia has decreased in area of prevalence.

Including reports by regular observers and others diphtheria and scarlet fever were each reported present during the week ending February 10th, and since, at 19 places, and measles at 16 places. Smallpox at St. Joseph, Berrien County, was reported as having ceased February 10th.

OBITUARY.—DR. HENRY C. SIMMS, died at Brooklyn, on February 13th, aged 50 years.

He was a native of Washington, D. C., a graduate of Jefferson Medical College in 1855, and had been twenty-five years in practice in Brooklyn. He was elected coroner in 1874, and again in 1877, but on running for a third term in 1880 was defeated; he was one of the very few physicians of education who have been chosen to that responsible position in that city, and made one of the best coroners who have filled the office. His death took place suddenly by heart disease; an autopsy revealed partial occlusion of the coronary artery.

——Died at Philadelphia, on February 15, 1883, DR. BENJAMIN HOWARD RAND.

Prof. Rand was born in Philadelphia in 1827. He graduated from the Jefferson Medical College in 1848, and two years later was elected Professor of Chemistry of the Franklin Institute. From 1852 to 1864 he was Secretary of the Academy of Natural Sciences. He accepted the Chair of Chemistry in Jefferson Medical College in 1864, from which ill-health forced him to retire in 1877. He was elected a Fellow of the Philadelphia College of Physicians in 1853 and a member of the American Philosophical Society in 1868, and was also a member of the American Medical Association. He was the author of several elementary works on chemistry.

—— Died on January 25th, CHARLES ÉMANUEL SÉDILLOT, in the eightieth year of his age.

Prof. Sédillot was born in Paris in 1804, where he received his medical education, graduating in 1825; in 1836 he was made Surgeon-major in the army and served in the African campaign. In 1839 he was appointed to the Chair of Clinical Surgery in Strasbourg. His contributions to operative surgery were numerous and important. He introduced several important modifications into the methods of performing amputations and resections: he was also the author of an important work on luxations. He was one of the first French surgeons to use ether as an anæsthetic, and his essay on the retention of the periosteum as a means of preserving the value of limbs was crowned by the Surgical Institute in 1867.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 12 TO FEBRUARY 19, 1883.

BROWN, JOS. B., *Lieutenant-Colonel and Surgeon.*—Detailed as member of board for examination of assistant surgeons for promotion and candidates for admission into the Medical Corps, U. S. Army, to convene at New York City, on March 1, 1883.—*Par. 1, S. O. 35, A. G. O., February* 10, 1883.

CLEMENTS, BENNETT A., *Major and Surgeon.*—Detailed as member of board for examination of assistant surgeons for promotion and candidates for admission into the Medical Corps, U. S. Army, to convene at New York City, on March 1, 1883.—*Par. 1, S. O. 35, A. G. O., February* 10, 1883.

JANEWAY, JOHN H., *Major and Surgeon.*—Detailed as member of board for examination of assistant surgeons for promotion and candidates for admission into the Medical Corps, U. S. Army, to convene at New York City, on March 1, 1883.—*Par. 1, S. O. 35, A. G. O., February* 10, 1883.

CLEARY PETER J. A., *Captain and Assistant Surgeon* — Granted leave of absence for four months on account of sickness, to take effect January 3, 1883, in extension of his authorized absence on certificates of disability.—*Par. 6, S. O., No. 40, A. G. O. February* 16, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL LECTURES.

THE TREATMENT OF LUPUS.

Abstract of a Clinical Lecture.

BY GEORGE HENRY FOX, M.D.,

CLINICAL PROFESSOR OF THE DISEASES OF THE SKIN IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

IN spite of the difficulties attending the diagnosis of lupus, which I have just pointed out, the general plan to be adopted in its treatment is usually clear. Should a tubercular syphilide be mistaken for lupus, and treatment by operative measures instituted, a gross blunder would be committed. A mistake in diagnosis, however, between lupus vulgaris and lupus erythematosus, or between lupus and epithelioma, or that form of disease which is known in England as rodent ulcer, would involve no serious harm to the patient, for the treatment would be substantially the same in either case.

In each of these affections, we have a new growth in the skin, which manifests a marked tendency to spread and invade healthy tissue. The main object of treatment must therefore be the destruction or removal of this growth. When taken in its incipient stage, this can be readily accomplished. If, however, lupus has increased to such an extent as to involve a considerable amount of tissue, its successful treatment is by no means a trivial matter. Half-way measures are often worse than useless. In very many cases the attempts to heal the ulceration, or remove the nodules by daily cauterization, have only stimulated the progress of the disease. It is better to do nothing than to irritate the part by applications which tend more to inflame the healthy skin than to destroy the morbid growth. At the same time it is not always necessary, and in lupus of the face it is often unadvisable to attempt to remove the growth in a single operation. In treating lupus, our object is not only to remove the diseased tissue, but to do so in such a manner as will occasion the least amount of disfigurement. A relapse of the disease after an operation, is considered by some surgeons to reflect discredit upon the operator. But, in the treatment of lupus of the face, I think it is far better to remove the greater portion of the growth at the first operation, and to tell the patient that a second or third operation will probably be required, in order to avoid, as far as possible, the production of a disfiguring scar. Of course, if the patient desires the removal of the growth in one operation, this can be accomplished, but in many cases I should not advise it.

Formerly, it was the custom to use the knife freely in the treatment of lupus, and no one can doubt the success which was attained by this method, but the resulting scar was usually large and deep. With the means now at our disposal, it is only in rare cases that we resort to the use of the knife. When lupus invades the lower eyelid, as it frequently does, a plastic operation may be necessary, in order to fill up the gap made by the removal of the diseased tissue; but when no such indications exist, a sharp spoon or curette is an instrument of far less terror to the patient, and of far greater utility in the hands of the surgeon, than the knife. Whether we have a group of tubercles with an unbroken epidermis, or a patch of ulceration, we can remove the diseased tissue by means of a curette with the greatest ease, and with a slight amount of pain; unless the patient is aged, or weak, or has very little courage, the growth, if small or of moderate size, can be removed without the use of an anæsthetic. In cases requiring anæsthesia, nitrous oxide gas is usually preferable to ether or chloroform. The scraping operation can be performed much more quickly than excision, and while the nitrous oxide may be safely inhaled for a half-hour or more, a few minutes of anæsthesia is often all that is required, and then much time is wasted and trouble occasioned by the use of ether.

In a number of cases I have resorted to the use of local anæsthesia with good effect. By the use of an ether spray produced by means of a hand-ball, the part to be operated upon can be kept in a half-frozen and almost insensible condition. The spray at the same time washes away the diseased tissue as fast as it is loosened by the curette, leaving the surface clear and thus rather facilitating the operation than otherwise. To one who has had no experience with the use of the curette, the ease with which the morbid tissue can be scraped away is quite surprising. The lupous nodules, although feeling firm to the touch, are much softer than the surrounding skin, and are scraped out of the corium by the employment of very little force. After some experience with this instrument, one learns to recognize the peculiar sensation which is imparted to the touch, when the instrument comes in contact with perfectly healthy skin. Should no steps be taken further than scraping out the morbid growth, a relapse is almost certain to occur, especially if the disease has existed for any considerable time, and has invaded the deeper portion of the skin; it is therefore always advisable to cauterize the raw surface left after thorough scraping, or to apply some powder or paste, which will be likely to destroy the vitality of the lupous cells which may remain. Of the various caustics which have been employed, I have found the application of chloride of zinc to be most efficacious, but the pain which it occasions is a serious objection to its use. The actual or thermo-cautery has been highly recommended, but I have seen lupous nodules reappear so many times after its use, that I cannot recommend it. Pyrogallic acid in the form of a twenty per cent. ointment, I have used as an application after scraping, and with good results. A mixture of equal parts of arsenious acid and gum acacia, made into a paste with a few drops of water, is very beneficial, inasmuch as it tends to destroy only the morbid tissue; but its use is followed by severe pain, which lasts for several days. When the patch is not of long standing, and is superficial in its seat, the application of iodoform after scraping is the plan which I would recommend. It is painless, and like the arsenical paste, tends to destroy the lupous cells and promotes the speedy healing of the ulceration. If, on the other hand, the growth is of long standing, and the nodules are deeply seated in the corium, the use of a cone of nitrate of silver is, in my opinion, the best adjuvant to the curette. The point of the nitrate of silver cone should be pressed firmly in different directions into the small pits left after the removal of the nodules. This procedure will usually serve to destroy the foci of the disease, which would otherwise certainly occasion a relapse in the course of a few months.

After the removal of a patch of lupus, by means of the curette and the employment of one of the applications already mentioned, the process of healing is

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usually speedy, and a tolerably smooth cicatrix will result. A relapse may be looked for at any time during the year following the operation, and should it occur, the morbid growth will appear in the form of one or more brownish-red papules springing up at the edge, or in the midst of the cicatricial tissue. A second operation then becomes necessary. But now it is comparatively a simple matter to dig out these foci of the disease by means of a curette of small size, and to thrust in a cone of nitrate of silver.

Multiple puncture and linear scarification are methods of treatment which have been highly recommended by European writers. In my opinion they are inferior to the plan of treatment by the curette and caustics, except in those cases where the disease involves the nose. Here the treatment by linear scarification is greatly to be preferred to others, inasmuch as it destroys the morbid cells by converting them into fibrous tissue without changing the normal contour of the part.

As regards the constitutional treatment of lupus, little can be done beyond a strict attention to hygienic conditions. The disease is generally regarded as dependent upon a scrofulous condition, and hence iodine and cod-liver oil may serve a good purpose. It will not answer to place much dependence upon these agents, however, as curative measures, for in some cases where cod-liver oil has been taken by the pint or half pint daily, the disease has persisted.

I cannot regard lupus vulgaris as the obstinate disease which it is generally described to be in the text-books: save in those cases where it has been neglected and has produced frightful ravages, a safe and speedy cure can be effected if the patient is in average health and the physician persevering.

Lupus erythematosus, on the other hand, is in my experience a more troublesome disease to deal with. As this affection is usually less disfiguring in its progress than lupus vulgaris, the patient is not ready to submit to surgical interference.

In this latter affection the various ointments and external remedies commonly employed have little curative effect in the majority of cases. In its mild and recent form it has been successfully treated by the daily application of green soap. The acute inflammation excited by this means causes absorption of the lupous cells. In one or two cases I have seen a patch disappear under the continual application of mercurial plaster. In many more cases I have seen this practice produce no beneficial results. I have recently applied flexible collodion containing twenty per cent. of chrysarobin, with the effect of leaving the patch in a smoother and far more healthy condition. If such mild measures are unavailing and a cauterizing agent is called for, I would recommend above all others the use of the ethylate of sodium. This blisters the skin, produces a superficial eschar, and by a peculiar effect which it appears to exert upon the bloodvessels, will remove a patch of erythematous lupus and leave a very slight cicatrix.

I have found the curette of comparative little value in the treatment of erythematous lupus, although I have successfully removed the disease by its use. The diseased tissue does not yield by any means as readily as do the nodules of lupus vulgaris, and the scraping is therefore more unsatisfactory than cauterization. As regards the internal treatment of erythematous lupus, I have little to say. The continued use of phosphorus has undoubtedly effected a cure in some cases. The iodide of starch, or *Amylum iodatum* of our new Pharmacopœia, was highly recommended some years ago. I consider this an extremely valuable remedy for a certain class of patients presenting symptoms of struma and calling for the administration of iodine. I have used this with apparent benefit to the general health in patients suffering from late syphilis and lupus vulgaris, as well as lupus erythematosus. I have not seen the latter disease cured, however, or modified in any marked degree by its administration.

ORIGINAL ARTICLES.

IODOFORM IN FISSURE OF THE ANUS.

BY BOARDMAN REED, M.D.,
PHYSICIAN TO THE SEASIDE HOUSE FOR INVALID WOMEN, ATLANTIC CITY, N. J.

FISSURE of the anus generally resists all ordinary treatment short of incision or dilatation. Sometimes even these operations fail; but if they were certain to cure, patients dread them, and often insist upon first trying every possible form of treatment, rational and irrational. Therefore, considering the very painful nature of the affection, any simple measure which has given good results in a large proportion of cases should command attention. An ointment of iodoform has proved, in my hands, exceedingly useful in this disease, effecting very good results in all the cases in which I have used it, with one exception, and here I do not think it had a sufficient trial.

Before resorting to this remedy my experience with anal fissures was rather unfortunate. Healing salves of various kinds were tried, and did very little good, even temporarily. Nitrate of silver proved as painful as the knife, yet frequently—indeed, generally—failed to cure, often seeming to aggravate. Even the operation of cutting through the floor of the ulcer failed sometimes in my earlier cases. The more radical operation of dividing the sphincter entirely I never resorted to.

I have preserved notes of five cases treated with iodoform, four of which were cured by it. Two or three other cases thus treated are only indistinctly recollected, no notes of them having been kept, but they also were cured, or greatly relieved. In one case only have I found it necessary to resort to operation since beginning to use the iodoform.

CASE I.—Mr. F. sent for me, at night, on account of excruciating pain in the anus. I found him suffering intensely, the pain taking a spasmodic form. There was a large inflamed external hemorrhoid, and, as an additional complication, an irritable ulcer. He had experienced more or less pain for months, but had become much worse within a few days. It was now so intolerable that a hypodermic injection of morphia and atropia was at once administered. Pieces of ice, wrapped in rags, were applied to the inflamed hemorrhoid, the only local palliative measure which I have ever found of any avail in such extreme cases. In this way comparative ease was obtained, but the injections had to be several times repeated, the spasmodic pain recurring, in a severe form, the moment the effect of the anodyne subsided. Meanwhile, moderately full doses of a mild purgative were given to open the bowels. These failed, and it became evident, from the peculiar spasmodic pain and forcing efforts, that a mass of impacted feces filled the rectum and lower bowel. Large doses of castor oil were administered, with the effect of relieving the distressing condition.

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The continued application of the ice reduced the inflamed pile, but the fissure seeming to be chronic, I advised dilatation of the sphincter. While this was being considered, the following ointment was used:

℞.—Iodoformi pulv., ... ʒss.
Bals. Peruv., ... ʒij.
Cosmolini, ... ʒj.—M.
Sig. Apply three or four times a day after washing the parts.

By this combination the very offensive odor of the iodoform is much disguised, though by no means abolished. The balsam of Peru, besides its usefulness in this direction, is an efficient stimulant to the healing process.

Some relief from this application was apparent almost from the beginning, and the improvement continuing, the operation was deferred, until at the end of a few weeks the fissure was found to have healed.

CASE II.—Mrs. V., aged 28, shortly after confinement with her first child, began to complain of pain in the anus, lasting for hours after each stool. An examination revealed a decided fissure. The bowels were kept open with pulv. glycyrrhizæ comp. The foregoing prescription of iodoform, etc., was again resorted to, and with entire relief. The pain was less and less complained of, and by the end of a month had wholly ceased. No further examination was made, but the symptoms have never recurred.

CASE III.—Mrs. L., aged 38, an inmate of the Seaside House for Invalid Women at Atlantic City, came under my care in October, 1881. She had retroversion of the uterus, complicated with much areolar hyperplasia, and I suspected but could not positively make out some fibroid thickening of the posterior wall. She also menstruated excessively about every twenty-one days. She had been complaining for some time of a persistent pain in the anus, coming on shortly after defecation. An examination revealed a fissure. Regular evacuations were procured with the pulv. glycyrrhizæ comp.—later with cascara sagrada—and the iodoform ointment was applied frequently. Relief was prompt, and at the end of two months the fissure was found entirely healed. Owing to the condition of her uterus, which resisted every form of local treatment, there was a constant tendency to congestion of the adjacent parts, and at times even after the fissure healed she complained of some dull pain in the rectum after stools, which she always found remedied by the use of the same ointment. She passed from under my care last June, when Dr. Wm. H. Bennett relieved me for the summer term, and had left the house before I went on duty again; but I cannot learn that the fissure has ever broken out anew, notwithstanding the continual existence of such a strongly prediposing cause. It may not be amiss to add that local treatment by applications of iodine, carbolic acid, etc., to the cervix and cavity of the uterus seemed only to aggravate the disease of that organ in this singular case, especially the one symptom of menorrhagia; yet the prolonged influence of sea-air and rest, combined with the use of tonic and restorative medicines, afterward greatly benefited that rebellious symptom, at the same time that her general condition was in every way improved.

CASE IV.—Mrs. K., aged 54. Passed the menopause three or four years ago, and has been in poor health ever since, suffering much from spinal irritation, and at times with severe epistaxis. When she first consulted me in the spring of 1881, she complained much of a persistent pain coming on soon after defecation. A near relative having cancer of the cervix uteri (since dead of it), my patient desired a thorough examination. This revealed a hyperinvoluted uterus in a healthy condition, except a slight lateral flexion. An anal fissure was found to account for the pain in that region. The iodoform ointment was ordered, and succeeded as before in relieving the pain promptly, with an ultimate cure. A year and a half later, coincidently with a stubborn attack of chronic endometritis, there was a slight return of the anal fissure, which yielded as before, only more speedily, and long before the uterine catarrh was wholly cured.

CASE V.—Mrs. L., a young married lady, a nullipara, who was spending the summer in Atlantic City, suffered with acute and long lasting pain after each act of defecation, which she attributed, as is usual, to hemorrhoids. I examined, and found two anal fissures. While my finger was exploring the rectum it detected a marked retroflexion of the uterus. Believing this flexion to have been the predisposing cause of the fissures, I advised that it should be immediately corrected, meanwhile, however, endeavoring to heal the latter by ointments. The lady preferred not to risk the iodoform smell, even in a modified form, while residing in a hotel. I ordered, therefore, the following, which is so highly recommended by Allingham:

℞.—Hydrarg. subchlor., . . . gr. iv.
Pulv. opii, ... gr. ij.
Ext. belladonnæ, . . . gr. ij.
Ung. sambuci, ... ʒj.—M.
Sig. To be applied frequently.

No laxative was needed in this case, since the patient's regular habit was to have one or sometimes two loose movements every morning.

There being fortunately no adhesions, the uterus was easily restored to its normal position by pressure with the fingers behind the fundus, while the patient occupied the knee-chest position. A Smith's Hodge pessary was then fitted. This was worn with perfect comfort and with the effect of curing a dull backache, which she had long endured without knowing its cause. The pain at the anus was somewhat alleviated by the ointment of calomel, etc., during the intermenstrual period, but becoming very severe again during menstruation, the iodoform ointment was resorted to. Whether, because an impure drug was furnished, or because of an idiosyncrasy, the lady suffered increased pain whenever this ointment was used, and therefore soon abandoned it. Some years before in prescribing iodoform for an old leg ulcer, a like difficulty

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was encountered. The powder in that case caused severe smarting pain, and upon being examined seemed to have been adulterated with yellow mustard! The lady insisted now upon an operation. Gas having been administered by a dentist, I dilated the sphincter and snipped off with curved scissors an old shrunken external hemorrhoid. The result was entirely successful. The fissures speedily healed and have not been felt at all since, even during menstruation. At the end of a month a careful examination showed no trace of them. The patient still wears the pessary (four months after the reposition) and suffers no inconvenience. Once, when I removed it to see if she could do without it, the uterus resumed its old malposition, with the result of bringing back the former sacral pain. For the morning diarrhœa, which was accompanied by a coated tongue, and was probably due to faulty hepatic function, I prescribed minute doses of hydrarg. chlor. mit. and podophyllin in powders with sugar of milk. These were continued several weeks, with the result of procuring nearly natural stools. The cure was completed with small doses of argentum nitrate, and the patient, when I last saw her, reported herself in perfect health.

It is noteworthy that of these five cases of anal fissure, four occurred in women, all of whom had some uterine difficulty, except one who just passed through parturition—a process very apt to irritate the rectum. Some of the gynecologists maintain that uterine affections are often the consequence of rectal disease; while the rectal specialists insist, on the other hand, that uterine displacements are a frequent cause of disorders of the rectum and anus. Probably both are right.

In treating anal fissures by iodoform, or by any other means, indeed, it is important to use just sufficient of the mildest laxatives to produce one soft stool daily. Anything approaching purgation will be likely to aggravate the congestion and prevent a cure.

In the prescription herein recommended, the iodoform is, no doubt, the most efficient agent, since it is found highly curative in ulcerations everywhere, of various kinds; but the balsam of Peru, probably, adds decidedly to the healing powers of the salve, besides lessening the pungency of its odor. The iodoform acts not only as an alterative and stimulant, but is also a powerful local anæsthetic. Prof. Lyman, in his *Artificial Anæsthesia and Anæsthetics*, mentions that, "introduced into the rectum, it may render the anus quite insensible to the process of defecation." A drug with such powers ought, *a priori*, to be useful in fissure, and experience proves that it is.

A CASE OF ACCUMULATION OF GALL-STONES IN THE GALL-BLADDER AND CYSTIC DUCT,

RESULTING IN CLOSURE OF THE DUCTS, AND DEATH BY ASTHENIA.

BY C. D. HILL, M.D.,
OF BETHEL, MAINE.

A. B., age 62, clergyman, of full habit, somewhat corpulent, consulted me September 23d, complaining of vague dyspeptic symptoms, such as gaseous eructations from the stomach, with a sensation of burning, heaviness, and occasional slight pains, referred to this region. The general uneasiness increased by lying down. Coated tongue; bowels constipated; stools lighter in color than normal; good deal of gas passed per rectum. Appetite good; pulse and temperature normal. Had lost considerable flesh and strength. Gave history of "not feeling well" since an attack of colic some time the previous spring. Had had a number of such attacks, distributed over a period of years; called, by quite a number of the various physicians who had attended him, "bilious colic." None of them had, to his knowledge, expressed any opinion as to the cause. Feces never had been examined for gall-stones. Had led a somewhat sedentary life.

Physical examination disclosed considerable tenderness over gall-bladder, with an indefinite feeling of enlargement; but owing to the amount of adipose tissue I was not satisfied in regard to this. Pressure produced a feeling of "sickness," which he could not describe or locate, but which was much intensified later in the disease. The area of hepatic dulness was not increased, except over gall-bladder.

The symptoms, with history, led me to strongly suspect the presence of gall-stones, with gradual closure of the common duct from the resulting inflammatory thickening. With this in view, I applied several blisters over seat of enlargement. Following these, I prescribed nitro-muriatic acid internally, and the acid pack externally, sulphate of quinine as a tonic, excluding fatty articles of food from the diet, regulating the bowels by laxatives.

Under the above plan a considerable degree of improvement took place; but he soon began to complain of the "sickness," which became a distressing symptom, at times resisting everything but opiates for its relief. It seemed to be caused by the accumulation of gas in the stomach or bowels, as it would abate for a time after the passage of gas.

In the latter part of October, the patient's strength in the mean time having gradually failed, he ceased to attend to his pastoral duties, and was confined to the house. Feces had been growing lighter and lighter in color, until, about November 1st, he became suddenly intensely jaundiced, with entire absence of bile from the stools. Blisters were again applied. Phosphate of sodium and sulphate of manganese substituted for the acid for a time. Attacks of the "sickness" became more frequent, and he was soon obliged to keep his bed. His appetite, which up to this time had been very good, began to fail. Progressive emaciation so facilitated examination that when the lungs were fully inflated a hard prominence could be distinctly felt in the situation of the gall-bladder. I no longer felt much doubt in regard to the diagnosis or probable prognosis.

In the latter part of November the patient was seen in consultation by Dr. I. T. Dana, of Portland, who fully endorsed my opinion.

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With a faint hope that suppuration might release the supposed accumulation, poultices were applied.

A few days before death much tenderness on pressure was developed over gall-bladder and adjacent parts.

For several days previous to death patient could not be induced to take anything but a small quantity of brandy, with the morphia which was given to relieve the distress or "sickness."

There was no nausea or vomiting developed throughout the whole course of the disease.

Patient died December 9th, life seemingly terminated by asthenia, as the bile had been freely eliminated by the kidneys and skin, and his mind was perfectly clear to the last.

The autopsy showed much thickening of parts adjacent to the gall-bladder, which was nearly covered in by a mass of chronic inflammatory exudate, binding it firmly to the liver, duodenum, etc. The bladder contained a small quantity of thin, purulent fluid, and upwards of three hundred gall-stones, very dense in structure, weighing in the aggregate two hundred and thirty-five grains, the largest eight and a half grains. The coats of the bladder were much thickened, and several of the larger stones had become partially sacculated. The cystic duct could be traced in the firm exudate in which it was involved only by the impaction of several small stones along its course; this exudation having the appearance of old scar-tissue. The common duct was obliterated for, perhaps, two-thirds of its extent, and the hepatic for a little way above the junction; appearances indicating that this occlusion was of much more recent date than that of the cystic—the gall-bladder having been doubtless out of use for an indefinite length of time, the bile in the mean time having passed from the liver directly into the duodenum through the hepatic and common ducts. It seems remarkable that the stones along the cystic duct should not have given rise to more disturbance, as he had experienced no pain of any consequence since the attack of colic in the spring, which, however, was of several days' duration I believe. There was some congestion, but no organic disease of the liver.

DISLOCATION OF THE HEAD OF THE FIBULA FORWARD AND OUTWARD.

BY IRA B. READ, M.D.,
OF NEW YORK.

THE infrequency of this accident is, perhaps, sufficient excuse for desiring it put on record.

On Sunday, December 26th, I was called to see J. Q., who, the messenger said, had hurt his leg, and the bone was "sticking out." I found him with the left leg extended, and in great pain. He said, that while shoeing a horse the animal had suddenly swerved around, carrying him with him, in such a manner as to double his leg under him. He felt a severe pain and a snap, as if something had given way.

On examination I found the head of the fibula projecting forward and outward in an unmistakable manner. I endeavored to reduce the dislocation, without success, and then called in assistance, and gave the patient chloroform. During the inhalation he became very refractory, and it required several men, who were standing around, to hold him. He soon became perfectly quiet, and we were about to reduce the dislocation, when we discovered that his struggles, together with the firm, and by no means gentle, pressure of those holding him, had reduced it for us, and the contour of the knee was perfect. There was considerable soreness. The knee was bandaged, and a compress with a short splint bound over the affected part, and the patient kept quiet for about two weeks. He is now well.

I find that Hamilton mentions but three cases collected by Malgaigne, and one by J. E. Hawley, of Ithaca, N. Y. Holmes says: "Dislocations of the head of the fibula have been occasionally met with, both from relaxation of the ligaments which connect it with the tibia, and from rupture of the same by violence." He mentions an extraordinary case reported by Boyer. Erichsen says: "The head of the fibula has occasionally, though very rarely, been displaced by the application of direct violence to it." He mentions Boyer's case, also one by Sanson, and one of his own.

This gives seven cases which I have gathered from the authorities at hand, my own making the eighth. It is needless to enter into the pathological or anatomical relations here. The case I have related was unmistakable, and that the reduction was accomplished so easily was a matter of congratulation, rather than of regret or chagrin, that my own hands had not effected it.

HOSPITAL NOTES.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

(Service of JOHN ASHHURST, JR., M.D.)

FOUR CASES OF DOUBLE AMPUTATION.

(Reported by GEORGE WOODRUFF JOHNSON, M.D., Resident Surgeon).

CASE I.—T. W., aged 48 years, a brakeman, fell from the top and was run over by the wheels of a freight car, on the 4th of November. When first seen, although hemorrhage had been profuse, the patient was sitting up in the cab of an engine in which he had been brought from the seat of the accident, in apparently a very comfortable condition. The right arm and left foot were terribly crushed and mangled, and the hemorrhage still continuing, an Esmarch tube was applied as low down as possible on both the upper and lower limb. He was immediately brought to the hospital, and, his general condition being most favorable, Prof. Ashhurst proceeded to amputate, scarcely one hour after the reception of the injuries. The patient being etherized, an amputation, after the method of Sédillot, was performed at the middle third of the leg, the arteries being tied with the ordinary silk ligature, and the stump dressed with pure laudanum. A circular amputation at the upper quarter of the forearm was next done, the wound being brought together in such a way as to allow of the most perfect drainage, and the stump dressed in the same way as that of the

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leg. The patient had some vomiting while under the anæsthetic, but reacted rapidly and well. Five grains of carbonate of ammonium were directed to be given every two hours, and the diet to consist exclusively of milk. On the day after the operation, the patient complained of nothing so much as of not getting enough to eat. On the 6th, two days after the operation, the stumps were dressed with dilute alcohol, the carbonate of ammonium was stopped, and four ounces of whiskey (to be taken in the form of a punch), and eight grains of quinine daily, were prescribed. On the 8th, the patient's bowels were opened by an injection of warm water and soap-suds. Tongue somewhat coated; complains of no pain or inconvenience; sleeps well. On the 9th, quantity of whiskey increased to six ounces daily. On 13th, all ligatures, and all but two stitches away from leg; union very good, as is also general condition of patient; bowels opened regularly. On 15th, whiskey diminished to four ounces, food increased in variety. On 16th, remaining stitches in leg removed, and flaps supported by strips of adhesive plaster; stitches also removed in arm. 18th, all ligatures out of arm; leg stump dressed with zinc ointment, spread upon patent lint, and covered by the original alcohol dressing; arm dressed with zinc alone. 21st, leg dressed with zinc alone; union both in arm and leg excellent, a major part of each stump having united by adhesion. The general condition of the patient is now, as it has been all along, most excellent; in fact, if we leave aside the existence of a small bed-sore situated over the sacrum, the case has progressed without a single unfavorable symptom or complication.

CASE II.—Benjamin S., aged 28 years, a machinist, fell under the cars at Tacony on November 7th, and sustained severe crushes of left arm and left foot. He was admitted about noon, in a condition of profound shock. Hot-water cans were placed around him, he was warmly covered, and five grains of carbonate of ammonium were given twice within the hour, accompanied the last time by about ten drops of deodorized laudanum, the injured man being very restless, and complaining a great deal of pain, At one o'clock his condition appeared to be satisfactory enough to warrant operative interference. The leg was removed at its lower third, by the modified circular method, the oval skin flaps being approximated in an antero-posterior direction; while in the arm, at its upper third, the simple circular method was employed, an external slit, however, being made, to allow the ready reflexion of the skin-cuff. The patient's general condition during the operation, which was performed as speedily as was consistent with propriety, was very poor, and it was necessary to occasionally administer ether subcutaneously, as a stimulant. The stumps were dressed in the same way as has been already mentioned, and five grains of carbonate of ammonium every hour, with a half ounce of whiskey every two hours, were prescribed.

On the 8th, the day after the operation, the pulse was 140; respiration 28; skin cool and leaky; tongue coated with whitish fur; appetite ravenous (milk the only food allowed), and thirst annoying. The ammonia was given every two hours, with the whiskey at the same interval, and also two grains of quinine and ten drops of tincture of digitalis four times in the twenty-four hours.

9th.—Patient very drowsy, and complains of headache. Bowels freely opened. Stumps looking well; dressed with alcohol.

10th.—Pulse 120, and of good volume. Blue-mass, in one-quarter grain doses, given with quinine four times daily. Vomited twice last night. Two passages from bowels, perfectly white, inoffensive.

11th.—The ammonia stopped. Tongue dry. Whiskey increased to eight ounces. General condition improved.

13th.—Stumps look well; very little suppuration. Patient allowed beef-tea in addition to milk.

15th.—Blue-mass stopped. Zinc and alcohol both used in dressing arm.

16th.—All stitches out of arm and leg. Zinc alone used in arm. Flaps well united; supported by strips. Digitalis stopped. Food increased in quantity and variety. Pulse quiet; tongue clear, but still dry. In the evening the position of the patient's bed was changed, and there resulted some headache, with quick, irritable pulse, and some restlessness.

20th.—All ligatures away from arm.

22d.—All ligatures away from leg. Whiskey reduced to six ounces. General condition of patient excellent.

24th.—Whiskey reduced to four ounces.

CASE III.—John G., aged 45 years, a laborer, was struck and run over by a locomotive engine, sustaining a severe crush of the right forearm and left leg. He was admitted to the hospital a short time after the reception of the injury, on the 8th of December. The patient complained of great pain in the shattered limbs, but was so little overcome by shock that, amputation being necessary, it was resorted to at once. The forearm was removed at its lower fourth by the ordinary circular operation, with an external slit, and the leg at its lower-third by the modified circular with lateral flap. The patient stood the operation remarkably well. By the 16th all stitches had been removed from both leg and arm; the stumps were doing remarkably well. At the time of the present writing the patient is out of immediate danger, and, unless some unforeseen complication should arise, will undoubtedly get well. No stimulants, except carbonate of ammonium immediately after the operation, have been prescribed, and quinine, combined at first with a little blue-mass, is all that the patient has received in the way of medicinal treatment.

The three cases of double amputation just recorded were, as will be seen, admitted within a short time of each other, and were under treatment in this hospital at the same time.

CASE IV.—On the 4th of September a man, E. S., aged 21, was admitted to the surgical wards, a Chopart of the right foot and an anterior and posterior skin flap amputation of the left leg, having been that day performed by a surgeon in one of the neighboring Pennsylvania towns. From the notes taken by my predecessor, Dr. George E. de Schweinitz, under whose care the patient was until October 1st, I find that the case progressed most favorably, nothing unforeseen occurring to mar the rapidity of the cure. The patient was discharged on November 2d; the result being in all respects excellent.

MEDICAL PROGRESS.

THE VALUE OF KOCH'S RESEARCHES IN TUBERCULOSIS.—DR. HERON believes that through Koch's researches we have now a method of investigating lung diseases which, standing alone and unsupported by any other method of examination, throws a special light upon a patient's condition. Speaking from his own experience, bacilli of tubercle are not always present in the sputa of patients whose physical condition would lead any one who knows something of Dr. Koch's work to expect to find them there. It is also a matter within his own experience, and it has happened to him more than once, to search the sputa for bacilli of tubercle and to fail to find them early in the history of a case of consumption. In the same case, within

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one or two months, he has found bacilli in the sputum, and in one instance in enormous numbers.

His experience also inclines him to expect to find it established very shortly, that in the prognosis of phthisis we must look to this method of investigating the sputum for valuable information. He thinks it will be established that, given persistence of a large number of bacilli of tubercle in the sputum early in the history of a case, and that case will run a short course and end in death. On the other hand, he thinks it will also be established that, given few bacilli of tubercle in the sputum of a consumptive, and given also, that that condition of fewness of bacilli in the sputum characterizes the case for some weeks, then that case will probably run a long course.—*Glasgow Medical Journal*, February, 1883.

CHOLESTERINE IN THE BRAIN.—PROF. BENEKE has recently published a work on the *rôle* of cholesterine in the brain. In the brain of a child, fifteen years of age, who died of phthisis, he found it present in the proportion of 2.34 per cent. of brain substance. It was also found in the brain of a young woman who died of puerperal fever, in the proportion of 2.13. According to the author, cholesterine plays an important part in the constitution of the protoplasmic matter from which the tissues are formed.—*Revue Scientifique*, February 10, 1883.

TREPHINING FOR INTRA-CRANIAL ABSCESS.—DR. KILGARIFF exhibited a patient before the Surgical Section of the Academy of Medicine, in Ireland, on whom he had performed the operation of trephining on account of an abscess resulting from a fall in the hunting field. The patient was unconscious for two hours after the accident. At the end of a fortnight he was removed to Dublin, suffering much from pain over the upper part of the occipital bone on the right side, and also much gastric irritability and general debility. Any motion, such as driving, intensified the pain, and caused nausea. On examination a shallow depression, the size of a florin, was found, bound by a well-defined margin, at the situation where he complained of the pain. The diagnosis of fracture, with the subsequent formation of an abscess within the cranium at the seat of the lesion, was made. An exploratory incision was made down to the bone, and a small purulent collection was opened into. Subsequently the operation of trephining was undertaken; and on exploring the bone a small circular opening through the skull, about two lines in diameter, was discovered. Through this opening, situated on the upper part of the occipital bone, some purulent matter oozed. A circular piece of bone was then removed with the trephine to provide free exit for the pus. An abscess cavity, from which almost half an ounce of pus welled up, was opened into. The inner surface of the piece of bone removed was deeply eroded. The cavity of the abscess was washed out with a weak solution of carbolic acid. Subsequently the patient experienced an attack of erysipelas of the head and neck, from which, however, he recovered, and nothing further occurred to interrupt the process of complete recovery of the patient.—*Dublin Journal of Medical Science*, January, 1883.

THE TREATMENT OF HYPERTROPHIED PALATAL TONSILS.—DR. D. N. RANKIN believes that after a general and local therapeutic treatment judiciously and unsuccessfully pursued, the following circumstances should be considered before excision be attempted.

1. Those in which an operation is contra-indicated: he has in his own experience observed cases (and they were not a few) where excision was contra-indicated. The operation should not be made when the glands are inflamed, especially if the patient is of a hemorrhagic diathesis, unless suffocation be threatened.

2. Those where an operation is justifiable and advisable: When from the great size of the glands the patient is in danger of immediate suffocation, in whatever condition they may be found; after all inflammation has been removed; when deafness, impaired speech, or frequent attacks of tonsillitis are produced, the operation should undoubtedly be made, and fully one-half of the tonsil be removed, as in his opinion the removal of less does not insure a good result. But one tonsil should be operated on at the same sitting.

3. The most suitable age at which the operation should be done: Experience has taught him that where there are no alarming symptoms present, demanding the operation earlier, between the fifth and eighth years is the time the operation can be done most satisfactorily.—*Archives of Laryngology*, January, 1883.

GASTRO-ENTEROSTOMY.—DR. FISCHER, of Strasburg, describes, in the *Deutsche Zeitschrift für Chirurgie*, a remarkable abdominal operation. In 1881 Freund removed a fibroid uterus from a woman, aged 30. Last May this unfortunate patient, who appears to have been predestined to be a victim to abdominal disease, was found, by Dr. Fischer, to be suffering, according to his diagnosis, from carcinoma of the pylorus. Lücke determined to attempt resection of that part of the alimentary canal. From May 13, 1882, to May 25th, the stomach was washed out, every day, and on the 25th, after an enema had also been administered, the operation was commenced, without spray. The parts were exposed by a free incision, but resection was found to be impracticable, owing to extensive adhesions between the pylorus and the neighboring structures, especially the pancreas. The pylorus was therefore laid open and the aperture united to the abdominal wound, as in a gastrostomy. The opening left in the wound was dressed with iodoform, and covered in with thymol-gauze. After the operation, the patient did well, the temperature rose but little above normal, and she was discharged in thirty-seven days. Since then she has enjoyed very fair health, being free from attacks of vomiting, and can easily digest light, nutritious food.—*British Medical Journal*, February 3, 1883.

THE PARASITE OF YELLOW FEVER.—According to the *Gazette Medicale de Mexico* DR. CARMONA DEL VALLA claims to have discovered the parasite to which yellow fever is due, and which he calls *peronospera lutea*. He has detected it in all the secretions, in the blood, and in the contents of blisters of persons suffering from yellow fever, and also in the vomited matter large amounts of black mycelium are to be met with, and he considers that the color of black vomit is due to the presence of this mycelium, and not to extravasated blood. He has observed the development of granules in the urine, which ultimately form the spores of this mycelium, and when this urine is injected under the skin of rabbits it causes intense fever, during which similar spores may be met with in the urine, and the animal is subsequently protected from yellow fever. Dr. Carmona made an injection of this parasite on himself to demonstrate its harmlessness.—*Rev. de Thérapeutique*, February 1, 1883.

NEPHRECTOMY.—At the meeting of the Surgical Section of the Academy of Medicine, in Ireland, MR. STOKES, on behalf of MR. FRANCIS J. O'REILLY, Surgeon to the Trim Union Infirmary, exhibited a right kidney which Mr. O'Reilly removed by lumbar section from a patient, aged twenty-six, in that institution, who suffered from right kidney symptoms and pus in her urine. He read Mr. O'Reilly's communication on the

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subject, which disclosed that the girl was never free from a desire to pass water, so that her sufferings were of a truly agonizing character. The quantity of urine passed daily was fairly normal, and the specific gravity ranged from 1015 to 1020. A favorable opinion was thus entertained of the capabilities of the left organ to discharge the increased functions with which it was about to be taxed. The operation was by the vertical lumbar, or post-peritoneal method, and was performed antiseptically. The vessels and ureter were secured by a whipcord ligature. The external wound was closed with interrupted sutures, and antiseptic dressings were applied. The patient suffered from vomiting during the late stages of the operation. The gland weighed eight ounces; and an abscess cavity at its superior extremity contained about two ounces of pus. The vomiting and depression which manifested themselves during the operation continued, and the girl sank, and died forty hours after the operation. About an ounce of urine was drawn off with the catheter previous to death, and did not contain a trace of pus. The kidney was a specimen of primary tubercular disease. A *post-mortem* examination was not obtained, but the wound was investigated and found free from blood clot, and perfectly aseptic.—*Dublin Journal of Medical Science*, January, 1883.

A NEW METHOD OF RESECTION IN OLD CASES OF PES VARUS.—The method which DR. RYDYGIER, of Kulm, proposes in such cases is as follows: A curved incision is made through the skin two centimetres in front of the external malleolus, in order to avoid opening the joint, the convexity being downwards, and prolonged over the outer side of the dorsum pedis to the centre of the cuboid bone. Through this incision, which reaches to the bone, the necessary resection can be readily made with a chisel without injuring any important structure. In the first place the neck of the astragalus is chiselled through obliquely from the outside inwards, and in the same direction further downwards, the anterior process of the calcaneum, so that a perpendicular wedge, with the base outward and above, is resected. By this means a great part of the deformity is corrected. To remedy the obstruction to the adduction and supination of the foot caused by the anterior process of the calcaneum, he resects a horizontal wedge-shaped piece, with the base outwards, from the upper surface of the anterior process of the calcaneum. A drainage-tube is inserted, the wound closed, and Lister's dressing applied, and a plaster bandage to keep the foot immovable. When a pes equinus is present, the tendo Achillis should be first divided.—*Berliner klin. Wochenschrift*, Feb. 5, 1883.

NEW METHOD OF DETERMINING THE RELATION BETWEEN CONVERGENCE AND ACCOMMODATION.—DR. MADDOX has devised a new instrument for testing the relation between convergence and accommodation. It consists of a small wooden box forming a dark chamber, into which both eyes are directed; a small aperture in the far side of the box affords a binocular fixation point. A small shutter is moved so as to intervene between the fixation point and one eye. This eye being then in darkness, assumes its position of equilibrium. The novelty and ingenuity of the instrument lies in the mode by which the position of the occluded eye is ascertained. In the far side of the box is a sliding strip of brass (one for each eye), in which is a minute aperture giving a point of light; this is moved until the point of light falls upon the optic disk and thus becomes invisible; the direction of the optic axis can be read off from degrees marked upon the slide.—*Ophthal. Rev.*, February, 1883.

PORRO'S OPERATION IN ITALY.—DR. BIANCHI reports (*Gazzetta degli Ospitali*, January 24, 1883) a case in which Dr. Barsotti performed Porro's operation, at Lucca, on December 28, 1882. The patient was rickety, and suffered from pneumonia and mitral insufficiency. The deformity of the pelvis was so great as to render any process of embryotomy impossible. The operation for the removal of the uterus and ovaries presented no unusual difficulty, but the mother died from exhaustion the following day. The child (male) survived, and was in good health at the end of a fortnight. According to Dr. Negri, Porro's operation was performed in Italy thirty-eight times from May, 1876, to May, 1882; fourteen of the women recovered and twenty-four died. It would also be interesting to know how many of the children survived.—*Lancet*, February 3, 1883.

CALCIFICATION OF THE KIDNEYS IN SUBACUTE POISONING WITH CORROSIVE SUBLIMATE.—MM. PREVOST and FRUTIGER have determined, by a long series of experiments made on various species of animals, that the continued administration of corrosive sublimate leads to a deposit of calcareous salts in the cortical substance of the kidney, commencing in the narrow tubules of the cortex; implicating then the tubuli contorti, and occasionally the entire medullary substance, giving the kidney the appearance of petrifaction. The administration of doses sufficiently large to produce death in about four days, produces a more marked deposit than when small doses are repeatedly administered. Proportionately with the deposit of calcareous matter in the kidney, there occurs a decalcification of the bones, the loss often reaching ten per cent. of the normal amount of salts present in bone.—*Gazette Méd. de Paris*, February 10, 1883.

TYPHOID FEVER COMPLICATED BY BILIARY CALCULI.—MR. ROBERT S. ARCHER reports two fatal cases of enteric fever, complicated by biliary calculi, which show that a fatal result may be induced by the *direct* mechanical irritation of a calculus (even a very small one) causing hemorrhage; that death may arise from the direct action of a stone on the floor of an ulcer, causing perforation; that serious hemorrhage may result from *reflex* irritation set up by calculi confined in the gall-bladder; that this hemorrhage may kill directly by its large quantity; that it may kill indirectly, by causing exhaustion and inability to withstand a prolonged and weakening acute affection; that in the course of enteric fever no sign or symptom may present itself whereby it is possible to diagnose the presence of biliary calculi.—*Liverpool Med.-Chirurg. Journ.*, January, 1883.

THE PARASITES IN PORK.—From the examination of one thousand hogs in the slaughter-houses of Montreal, Dr. WM. OSLER draws the following conclusions:

1. The investigation shows that the hogs slaughtered for our markets present parasites in numbers sufficient to necessitate a more thorough inspection than is at present carried out.

2. As regards *Trichina spiralis*, which was found in the proportion of 1 to 250, we are of opinion that, considering the extreme rarity of cases of trichinosis, and the difficulties attendant upon a systematic inspection, a compulsory microscopic examination of the flesh of every hog killed is not at present called for.

3. In the case of "measles," the liver should be carefully examined, and if present in it, the flesh of the animal should receive the special attention of the inspector; if only in the liver, the entire carcass need not be confiscated.

4. Echinococcus cysts in the liver render that organ unfit for food, but in other parts, unless very numerous

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and disorganizing, they may be cut out, and the carcass remain marketable.

5. The public should be made aware of the possible dangers of eating, in any form, raw or partially cooked meat. The best safeguard against parasitic affections is not so much inspection of the flesh, unless, indeed, this is minutely carried out, as careful attention to culinary details.

6. To reduce the number of infested hogs, greater attention should be paid to their hygienic surroundings, particularly in the matter of feeding. The danger is not during the period when the animals are penned and fed on grain, etc., but when they are allowed to roam at large and feed indiscriminately.

PARALDEHYDE: A NEW HYPNOTIC.—The actions of this drug were first studied by Dr. Cervello, of Palermo; and his experiments were made in the laboratory of Experimental Pharmacology at Strasburg, under the direction of Schmiedeberg. Professor Morselli, of the Royal Asylum of Turin, has, in conjunction with Dr. Bergesis, the assistant medical officer, made an extensive series of observations with it. Its chemical composition is $C_6H_{12}O_3$; and it is a polymeric form of aldehyde. In physiological action it strongly resembles chloral. A dose of three grammes procures quiet and refreshing sleep for from four to seven hours. It differs from chloral in its action on the circulatory system, strengthening the heart's action, while diminishing its frequency. It has also a well-marked action on the kidneys; greatly increasing the flow of urine. The skin is not at all affected. The drug does not give rise to digestive disturbances, to headache, or to any other unpleasant symptom. Up to the present, Professor Morselli has used paraldehyde about three hundred and fifty times. He has found it a valuable remedy in mania, melancholia, and other nervous affections, as well as in the sleeplessness that accompanies acute bronchial catarrh, lobar pneumonia, and heart diseases. He believes that it will to a large extent take the place of chloral.—*British Medical Journal*, February 3, 1883.

TREATMENT OF EXOPHTHALMIC GOITRE BY SUBCUTANEOUS INJECTIONS OF DUBOISIA.—M. DESNOS reports three cases of exophthalmic goitre treated by a daily subcutaneous injection of from one-half to one milligramme of neutral sulphate of duboisia. In all three cases the improvement was marked: there was diminution in the projection of the eye, and in palpitation; improvement of the general health, and reduction in the pulsation and murmur in the thyroid gland. When the treatment was discontinued the improvement disappeared. Further observations are necessary to determine whether a permanent cure may be produced by means of this drug. In two cases there were slight symptoms of the physiological action of the drug.—*L'Abeille Méd.*, Feb. 5, 1883.

THE SOLAR PLEXUS IN TYPHOID FEVER.—DR. LEVEN (*Gaz. des Hôp.*, January 30, 1883), of the Rothschild Hospital, draws attention to the fact that, among the numerous cases of typhoid which he saw during the late epidemic, there were very few unattended with abdominal symptoms, and he believes that these are frequently caused not so much by the disease itself as by the faulty practice of administering purgatives which excite the nervous system of the abdomen; and that the pain in the iliac fossa, which has been regarded as characteristic of the disease, is confounded with a hyperæsthetic condition of the abdominal parietes induced by the irritation of the right nervous ganglion produced by the same treatment. When diarrhœa is produced by purgatives given during the febrile condition, the nervous ganglion of the great sympathetic, placed at four centimetres distance from the umbilicus, becomes irritated, and tenderness is felt on pressure there. Whenever diarrhœa exists it should be arrested by means of bismuth, as its only effect is to aggravate the adynamia and exhaust the strength.—*Medical Times and Gazette*, February 10, 1883.

PECULIAR CHARACTERS OF THE SEROUS CONTENTS OF AN INGUINO-ABDOMINAL TUMOR.—MM. J. REGNAULD and VILLEJEAN detected in the fluid contents of an abdominal tumor, drawn off by aspiration, an albuminoid principle closely analogous to fibrine, with the exception of not being spontaneously coagulable. It was precipitated by the addition of water, and closely resembled fibrine in its general character, and existed in about five or six times the proportion in which fibrine is generally present in blood plasma. The fluid contained also, metalbumen, serin, and peptones, while globulin and mucin were absent.—*Arch. Gén. de Méd.*, February, 1883.

ABDOMINAL SECTION FOR PUERPERAL PERITONITIS.—In a recent number of the *Wratsch*, DR. MOLODENKOFF, of Moscow, describes the case of a woman, aged 28, who was admitted into hospital ten days after delivery, for diarrhœa, fever, and swelling of the hypogastrium. Ten days later, the abdomen was much distended, and on exploratory puncture purulent fluid was obtained. On the next day, an incision was made along the linea alba, and a great quantity of pus emptied out of a circumscribed cavity formed between the abdominal wall and adherent coils of intestine. To facilitate thorough drainage, a second opening was made immediately above the symphysis; and after tubes were inserted into the wounds, the whole was covered in with antiseptic dressings. On the next day symptoms of carbolic poisoning appeared. Much pus escaped, great prostration set in, and the patient rapidly lost strength, dying on the fourth day after operation. At the necropsy, ten smaller circumscribed collections of pus were found between coils of intestine, inaccessible to the drainage tubes, as they had been arranged, besides the large cavity that had been effectually drained. The mucous membrane and peritoneal covering of the uterus and the ovaries were acutely inflamed. Dr. Molodenkoff concludes, from his personal experience in this case, that abdominal section and washing out of the peritoneum, with subsequent drainage, is not justifiable in cases of purulent peritonitis. Last year, Dr. A. Schmidt described, in the same Russian paper, a successful case of what he considered to be laparotomy and clearing out of an intraperitoneal collection of pus; but Molodenkoff believes that an abscess in the abdominal walls only was emptied, and that the peritoneal cavity was never opened. In the *Deutsche Medicinische Zeitung*, this point is disputed. There appears, according to that journal, to have been no doubt that Dr. Schmidt opened the peritoneal cavity; but, it is pointed out, this was a case of very chronic purulent peritonitis of half a year's duration, whilst Molodenkoff's patient was suffering from an acute puerperal complication. There can be no doubt as to which proceeding was the most justifiable.—*Brit. Med. Journ.*, February 10, 1883.

PORRO'S OPERATION.—DR. LEOPOLD DEJACE has recently performed the first case of Porro's operation in France. He followed Müller's modification, with the exception that he amputated the uterus before extracting the fœtus. The result was successful, as regards both mother and child.—*Journ. de Méd. de Paris*, February 10, 1883.

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FUNNEL-DRAINAGE IN ANASARCA.—This is a method of removing large quantities of fluid devised by DR. STRAUB, of Tübingen. It is simpler than Southey's, and affords more relief in equal time. The apparatus consists of an ordinary glass filtering funnel, of about two inches diameter, with attached to the end of it an India-rubber tube, one-eighth inch in diameter, and long enough to reach to the floor. If the apparatus is filled with water, and the mouth of the funnel firmly applied to the skin of a patient lying in bed, while the end of the tube is immersed in a vessel on the floor containing a little water, it will be found to adhere quickly and act as a sucker: and when the funnel is applied over several small incisions or punctures in a case of œdema, the tube acting as a siphon will keep up a continuous drainage of serum into the vessel. The force of the suction, can, of course, be regulated by altering the level of the vessel, and the flow of fluid can be watched by a piece of glass tubing let into the India-rubber tube. The apparatus, if protected by a small cage or cradle, can be left on for any length of time, and is not displaced by movements of the patient if ordinary care is taken. Enormous quantities of serum have been drained off in this way. In one case of chronic Bright's disease there were drawn off in two and a quarter hours, over 78 ounces (2,270 ccm.); in seven hours, over 96 ounces; and in twenty-four hours, 278 ounces (8,050 ccm.); and in another case of extreme general dropsy from Bright's disease, nearly 43 pints (24,800 ccm.) were removed in seventy-nine hours.—*Glasgow Medical Journal*, February, 1883.

TRANSITORY AMAUROSIS FROM CARBOLIC ACID POISONING.—A. NIEDEN reports a case in which amaurosis, lasting for twenty hours and then gradually entirely disappearing, followed the washing out of a pleural sac for empyema with about 100 cc. of a three per cent. carbolic acid solution. Immediate collapse followed the injection, soon followed by a condition of great weakness, with dyspnœa, nausea, and absolute blindness. An ophthalmoscopic examination revealed nothing abnormal, though the pupils were widely dilated.—*Centralblatt f. Chirurg.*, February 10, 1883.

EXTIRPATION OF THE LARYNX.—At the meeting of the Calcutta Medical Society, held December 13th, DR. MCLEOD exhibited a larynx which he had recently extirpated. The patient, a middle-aged man, tall, sallow, and thin, had suffered from aphonia for a year, and about three months before admission a growth had made its appearance over the right side of the larynx. It presented the appearance of a raised excrescence, overhanging the surrounding skin at the circumference. The skin was infiltrated at its base, and the growth had evidently sprung from the interior of the larynx. It could be felt filling up the rima glottidis by the finger introduced through the mouth. Finding that it was still confined to the larynx, except so far as it had implicated the skin in front and to the right of it, and hoping that the whole mass could be extirpated without much serious risk to life, an operation was undertaken for that purpose. The thyroid body was carefully exposed, and found to be implicated on the right side. Its removal therefore became necessary. This added considerably to the difficulty and gravity of the operation, because division of the thyroid vessels was unavoidable. They were secured by ligature before division, and very little blood was lost. The larynx including the tumor was isolated as completely as possible before the trachea was divided, and its subsequent separation was accomplished by dissection with blunt-pointed scissors, from below upwards. Chloroform was given by mouth in the first instance, and then through the divided trachea. The patient had suffered a good deal from shock, but had made, on the whole, a satisfactory recovery. No irritation of the lungs of any consequence took place. Irritation of the lower bowel was caused by frequent injections, but that was overcome by the use of starch and laudanum. The patient could be made to whisper, by closing the external wound, and hopes were entertained that he could eventually be made to talk by means of an artificial larynx.—*Indian Medical Gazette*, Jan. 1, 1883.

THE THERAPEUTIC USES OF HOT WATER IN GYNECOLOGY.—In addition to the well known valuable properties possessed by hot-water injections in controlling uterine hemorrhage, RUNGE also recommends their use whenever a contracted condition of the uterus is indicated: thus he has obtained good results by this plan of treatment in acute retroflexion accompanied by hemorrhage. When, however, the bleeding is due to some pathological condition, such as fungoid endometritis, fibroma, etc., no permanent good result can be expected. He believes that the results obtained may be attributed with equal force to the mechanical, as to the thermal stimulation.—*Central. f. Gynäkol.*, February 10, 1883.

DIABETIC AND NEPHRITIC NEURALGIA.—BERGER has recently published notes of twenty-one cases of typical origin, of which twelve were of diabetic and nine of nephritic origin. The ischiatic nerve and its branches were affected in the majority of cases; the neuralgia tended to be symmetrical, was often associated with vaso-moter disturbances and resisted all plans of treatment not directed to the fundamental disease. The violence of the neuralgia was usually proportionate to the severity of the original disease; and is attributed by the author to an implication of the central nervous system.—*Centralblatt f. klin. Med.*, February 10, 1883.

CONVALLARIA MAIALIS.—DR. B. STILLER, in the *Wiener Med. Woch.*, adds his experience to the observations on convallaria maialis, which, it will be seen, is of different tenor from that of the Russians, who introduced it, and of M. Germain-Sée, who first made it prominent.

Seventeen persons were treated by Stiller, some for relapses, making a total of twenty-one cases, fifteen of whom were males; the ages varied from eleven to seventy years, and the diseases were four cases of mitral insufficiency with aortic regurgitation, one of pure mitral regurgitation, five of regurgitant and stenotic mitral disease, four of mitral stenosis, five of weak heart with dilated left ventricle, and, lastly, two cases of Graves' disease, altogether a motley group of cardiac diseases. Out of the twenty-one cases seventeen gave absolutely negative results with convallaria; there was not the least influence on the frequency or rhythm of the heart's action. Some of these cases proving intractable to convallaria were subsequently benefited by digitalis; two individuals experienced a certain degree of the diuretic effect of the new drug without any of the other vaunted phenomena, not even the dropsy being diminished; two patients underwent decided improvement in most of the cardiac symptoms during the use of the new medicine, but these cannot outweigh the large balance of negative results.

It will be remembered that the advocates of this drug claimed for it all the advantages of digitalis in regulating the frequency and rhythm of the heart beats, increasing the strength of the contractions, and raising the blood pressure, and without any of the dangers of the cumulative action of digitalis.—*Boston Med. and Surg. Journal*, February 22, 1883.

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PHOSPHOROUS POISONING.

A CAREFULLY observed and well-narrated case of phosphorous poisoning is contained in a recent number of *The Practitioner* (London). There are several interesting points connected with this subject. Phosphorus is taking high rank as a material for self-destruction. Phosphorous paste, as a rat poison, and match heads, are procurable by all who choose to buy them. It is said that, at the present time, one hundred match heads, pulverized, is the favorite dose of those bent on suicide in Germany. Besides the use of these forms of phosphorus by the suicide, they are, now and then, taken by accident. One of the amusements of children is eating match heads. It is very desirable, therefore, to have some clear notions regarding the symptomatology and treatment of phosphorous poisoning.

In the case above referred to, the quantity of phosphorus which produced death was, according to Dr. Stevenson, the eminent toxicological expert of Guy's Hospital, about two grains. For three and a half days after the ingestion of this fatal dose, there were no symptoms except epigastric pain, and the initial symptoms of jaundice, consisting of some yellowness of the conjunctivæ. The breath had a sulphurous odor, afterwards garlickly, on the fifth day, and the body was distinctly jaundiced, the urine containing a quantity of bile pigment. At this time the urine had a specific gravity of 1030, was acid in reaction and contained some albumen; the pulse was 104, and the temperature 99.6°. Delirium and involuntary evacuations occurred on the eighth day after the poison was taken, and death ensued on the morning of the ninth day. Notwithstanding the pronounced stomach pain, there was no inflammation of the mucous membrane of the stomach discovered on *post-mortem* examination. There are several reasons for this departure from the usual condition. The phosphorus was taken in a form adapted to ready absorption, and there was no production of phosphoric acid, to the destructive action of which, the erosions of the mucous membrane and the perforations are properly attributable.

There was the usual fatty degeneration of the liver, the heart, and the vascular system. Hemorrhagic extravasations were, however, wanting. Notwithstanding this is a symptom of phosphorous poisoning much insisted on by the systematic writers, it was wanting in this case, as it has been absent in a large proportion of the recorded examples of this affection. Jaundice was a pronounced symptom, and this appeared when otherwise there were almost no symptoms of illness. There are many interesting questions connected with the jaundice of phosphorous poisoning. Is it hæmatogenetic or hæpatogenetic? By Dr. Legg, the author of an elaborate work on bilious diseases, recently issued, it is regarded as hepatogenetic jaundice—that is, jaundice of hepatic origin, and according to him, due to catarrh of the bile-ducts, a secondary result of the gastro-intestinal catarrh, set up by the phosphorus. This case does not lend support to this view. There was no apparent catarrhal process of the gastro-intestinal mucous membrane. The mode in which the jaundice developed affords strong presumptive proof of its hæmatogenetic origin—that is, due to the disorganization of the blood. The close correspondence between the blood pigment and the bile pigment, has long been recognized; when, therefore, any condition exists by reason of which the coloring matter of the blood is separated from its usual associations, the appearance known as *jaundice* becomes manifest. The destruction of the red-blood globules, caused by phosphorus, and the separation of its hæmatin, would, therefore, seem to be a sufficient explanation of the phosphorous jaundice. Such is the view taken by Harley in his recent work on the liver; but it would be wrong to omit mention of the fact, that the existence of hæmatogenetic jaundice is denied by some of the most eminent of our modern pathologists.

The treatment pursued in the case on which we have commented seems to us very inefficient. Turpentine was used, and alcoholic stimulants, to afford the necessary support of the vital powers, were freely administered. There are several points on which criticism is demanded. The form of turpentine which has proved effective in phosphorous poisoning is the acid French turpentine, or its congener, old turpentine long enough exposed to the

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air to have absorbed oxygen as ozone. The author of the paper from which we have quoted *näively* says "turpentine has been given in many others [cases besides his own] but with no definite results." He apparently failed to realize the form of turpentine which has been proved to be effective. He administered "ten drops of the oil of turpentine three times a day, a milk diet with eggs." The medicine was begun four days after the poison had been taken —or after its absorption had fully occurred. The acid French turpentine or ozonized turpentine, is effective whilst the phosphorus is still present in the stomach, and by actual contact converts the poison into a spermaceti-like substance, which is harmless. To administer the antidote after the phosphorus has diffused into the blood and caused the dissolution of the red corpuscles is simply idle. The experience of Jürgensen has shown that transfusion is the proper remedy when this condition of the blood results from phosphorus. He reports several cases in which cures were effected by the timely use of transfusion. The mechanism is obvious. Fresh blood, in a condition to functionate, is supplied in place of the poisoned blood so far damaged as to be unable ever again to perform its proper office.

THE TREATMENT OF MANIA AND EPILEPSY BY BROMIDE OF ETHYL.

THE unfortunate experiences which have been encountered in the use of ethyl bromide as an anæsthetic agent, although ending its career as a general anæsthetic, have not prevented further experimental study. In the skilful hands of Prof. Chisolm, of Baltimore, it has been revived as a most useful anæsthetic for procuring very temporary insensibility. We have now, however, to call the attention of our readers to the successful employment of ethyl bromide as an agent for bromide medication in general—for the speedy and effective introduction of a bromide compound into the blood. It must be well known to our readers that ethyl iodide has been utilized, especially by Dr. Lawrence, of Boston, and Prof. G. See, as a remedy for diseases, especially of the respiratory organs, in which the iodides have been proved to be serviceable. With the same view, ethyl bromide has been employed to procure the curative results now obtained by the administration of the bromides by the usual channels. The first attempts to treat nervous affections by ethyl bromide were made by MM. Bourneville et d'Olier, in 1880 (*Bull. Gén. de Thérap.*, vol. 100, p. 435). These observations have been continued by Dr. ROUX, under the supervision of the physician to *Bicêtre*, and appear in a thesis for the doctorate, an abstract of which is to be found in the *Journal de Thérapeutique, de Gubler*, for January 25, 1883. Observations have been made on the effect of the ethyl bromide as used in the treatment of the access of the epileptic paroxysm, and of the subsequent state, or intermediate stage. The epileptics thus treated were mainly those for whom the bromide of potassium had been used ineffectively during several years.

The physiological effects obtained from the inhalation of ethyl bromide are thus described by Bourneville: Complete muscular resolution is exceptional, and the degree of insensibility varies in different subjects. The temperature, the secretions, and the general state are not modified; the pulse and the respiration are a little accelerated. It causes some trembling, variable in amount during the inhalation, but this does not persist afterward.

The therapeutical results, as given by Bourneville, and also confirmed in independent observations by Roux, are as follows: Attacks of hysteria are in general quickly arrested by inhalation of ethyl bromide. The epileptic paroxysm may sometimes be arrested by giving this remedy during the tetanic stage; usually the inhalation has no effect on the spasms. The regular, daily inhalation of ethyl bromide during a period of one or two months, notably diminishes the frequency of the epileptic attacks. Dr. Roux also reports that using this agent in two cases of mania, one was improved, and one cured.

It must not be overlooked that some untoward results have been caused by the inhalation of ethyl bromide, according to Dr. Roux. In two cases it seems to have caused paraplegia. To prevent this accident, the inhalation should be suspended for several days after every two weeks of its continuous administration.

Further observations are necessary. There seems to be much promise in this mode of administering the bromides, as well as the iodides. As the purpose of the stomachal administration of any drug is to procure its admission to the blood, the method of inhalation offers conspicuous advantages in respect to the readiness of diffusion.

THE TREATMENT OF EPILEPSY AS CONDUCTED AT SAINTE-ANNE.

THE asylum Sainte-Anne offers an enormous opportunity for the study of epilepsy. In a thesis for the doctorate, DR. G. BOYÉ, who had the privilege to act as *interne* for Prof. B. Ball, embodies the observations made under these advantageous circumstances. The basis of the treatment of epilepsy, in this institution, consists in the administration of the bromides of sodium and ammonium, with oxide of zinc and belladonna. The formula for the bromides is the following:

℞.—Ammonii Bromidi,
Sodii Bromidi, . . . āā 160 grains.
Aquæ, ... ℥j.—M.

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This is administered by teaspoonfuls in a cup of valerian tea. At the beginning of the treatment, four teaspoonfuls of the solution are prescribed daily, and the quantity is gradually increased up to eight or ten teaspoonfuls, if the amount first given proves to be insufficient.

At the same time a pill of zinc oxide and extract of belladonna is given, containing about one-half a grain of each ingredient. Two of the pills are administered every day, but, in obstinate cases, four may be given.

In cases of epilepsy, characterized by hyperæmia of the intra-cranial circulation, Prof. Ball uses revulsives behind the ears and to the nape of the neck, and prescribes some purgative pills every ten days. When the stomach is feeble, bitter tonics and pepsin are administered.

Dr. Boyé compares this plan of treating epilepsy, with that in which bromide of potassium is the principal remedy. The large field for comparative observations under his management at Sainte-Anne, gives peculiar value to his results. His conclusions are, that the bromides of sodium and ammonium have an immediate effect on the epileptic seizures; that they are much better borne than the potassium bromide, and that no disorder of the digestive organs occurs, except the dose be very large.

MEDICAL MATTERS IN CONGRESS.

IN the debate upon the Army Appropriation Bill in the Senate, the amendment proposed by Mr. Logan to reduce the usual appropriation of $10,000 for the Army Medical Museum and Library to $5,000 was stricken out, and on motion of Senator Conger $7,000 was allowed for the Library, and $3,000 for the Museum.

The debate showed that few of the Honorable Senators knew anything definite about the Library or Museum, although we were glad to see that there was a general impression that they were valuable and useful. A letter from Dr. Billings to the Surgeon-General was read, in which, among other things, it was stated that "the demands upon the Library for books and information are steadily increasing, and there is not a week during which some books are asked for which it does not possess. During the past year, under the regulations which permit of the loan of books to other responsible libraries, books have been loaned to Boston, New York, Philadelphia, Baltimore, Chicago, Cincinnati, St. Louis, and other places for use by physicians in those places."

Upon this Senator Logan commented as follows: "That is not the way for the Government money to be used, buying books to be distributed around over the country for the use of other people. If they want them, let them go to the Library and examine them."

We should like to know what Mr. Logan means by "other people." He seems to forget that the government in this country is the people. We hope that some of his medical constituents will enlighten him in the course of the summer. They might also remind him that it is only asked that the books be put in the Government Library. All the expenses attending their use in other places than Washington, are borne by the "other people."

The result of the Senate's action is satisfactory as far as the Library is concerned, but the Museum gets too little. The two institutions should have together $15,000 per annum to make and keep them what they ought to be.

The Sundry Civil Appropriation Bill has passed the House without the insertion of any provision for the National Board of Health. Mr. Ellis, of New Orleans, made an attack on the Board, ridiculing its investigations, claiming that it had tried to create a panic about yellow fever being in New Orleans when the city was free from that disease, and, in short, reiterating the charges of the Louisana Board of Health. In the course of the debate one fact was brought out which we are very sorry to see. Mr. Ellis produced a table showing the expenditures of the Board for investigations into the causes of disease, etc., which table he said was taken from the books of the Board. On being questioned he said the information had been furnished by a member of the Board, and a little later said that he gave it on the authority of the Surgeon-General of the Marine-Hospital Service.

The records of the Board are, of course, public property, and any one has the right to examine them, but that the member of the Board from the Marine-Hospital Service should set to work to furnish material for an attack on the Board on account of its scientific investigations, the results of which have received universal commendation—and that the Surgeon-General of the Marine-Hospital Service should join in this attempt to prevent further work in this direction, is a thing we can hardly credit even upon Mr. Ellis's testimony.

While refusing any appropriation for the Board, the House granted $100,000 to be used in case of epidemic, and to be expended, as was the case last year, under the direction of the Marine-Hospital Service.

We print elsewhere extracts from a letter written by the Mayor of Brownsville, Texas, in which very unpleasant charges are made as to the manner in which this epidemic fund was administered.

No doubt there is another side to this question, but that political considerations governed the ap-

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pointments made by Custom House officials to carry out the law, we have no doubt, and the results cannot but be harmful to the cause of preventive medicine.

An attempt will probably be made to amend the bill in the Senate, but the prospect of success is not good. Congress has not yet learned its lesson, and probably it will require the sacrifice of many lives before this is accomplished.

THE ILLINOIS STATE BOARD OF HEALTH.

THAT the Illinois State Board of Health, through the energy of Dr. John H. Rauch, its Secretary, has been of service not only in purifying the State of a large number of incompetent practitioners of medicine, but also by keeping in line certain medical schools otherwise inclined to be lax in their rules of graduation, no one dare deny. It is much to be regretted, therefore, that so soon after having passed its resolution to the effect that hereafter no diploma would be recognized except from schools which require an admission examination in addition to attendance upon at least two annual courses of lectures, it should fail to take explicit action in the case of the Columbus Medical College, after its exposure in so flagrant an offence as the issuing of the Dent diploma. Yet such appears to have been the case.

It seems that the Illinois Board had before it the official statement of the facts by Dr. James E. Reeves, Secretary of the State Board of Health of West Virginia, and the action of his Board in relation to the conduct of this College. No allusion is made to this in the Illinois Board's published proceedings of January 11 and 12, 1883, while mention is made of a communication from Dr. Reeves, stating that a diploma issued by the Baltimore Medical College had been refused recognition by the West Virginia Board. This together with another circumstance is calculated to place the Illinois Board in an equivocal position. The election of Gov. Collum, of Illinois, to the U. S. Senate, caused the accession of Lieut.-Gov. Hamilton to the gubernatorial chair. Now, Gov. Hamilton is the nephew of Dr. J. W. Hamilton, the Dean of the Columbus College, and while this may have had nothing to do with the action of the Illinois State Board, it makes it the more incumbent upon that body to present a satisfactory explanation.

PYROGALLIC ACID IN THE TREATMENT OF PHAGEDENA.

IN a paper presented to the Academy of Medicine recently (*Bull. Gen. de Thérap.*, 30 Janvier, 1883), M. VIDAL urges the employment of pyrogallic acid as a means of arresting phagedenic ulceration—especially of phagedenic chancre. He narrates several cases in which this remedy was entirely successful, when iodoform and other antiseptic applications had failed. He advises it for soft chancre, and sloughing phagedena, and not for sloughing ulcers of tertiary syphils. For a simple soft chancre, Dr. Vidal advises the pomade, as follows: pyrogallic acid, 20 parts; axunge (or benzoinated lard?), 80 parts. Mix.

When the ulcerating surface has fissures, pockets, and sinuses, he prefers the following powder: pyrogallic acid, 20 parts; powder of starch, 80 parts. Mix. Such a powder may be blown by an insufflator into all the folds, and depressions, and sinuses, and thus all parts of the unequal surface be acted on. Whether the unguent or powder be used, the application should be made morning and evening until the character of the sore changes, when iodoform, or any simple dressing may be substituted.

Pyrogallic acid is a toxic substance. Husemann (*Die Pflanzenstoffe*, p. 1005) states that it is not absorbed when inserted into the subcutaneous connective tissue, but gives abundant evidence of its toxic activity when introduced elsewhere. Vidal holds that it may be absorbed by the skin in sufficient quantity to be dangerous, and hence he advises prudence in the applications. It is quite certain that no symptoms of poisoning will be produced when the applications are made as above advised.

THE NEW YORK CODE.

WE learn from an authentic source that a society is being organized in the State of New York, whose object is to maintain the Code of Ethics of the American Medical Association. A large number of the leading members of the profession have expressed their desire to join the society and become active co-workers. This movement is very timely, and will lead to the most important results.

AT the Commencement of the Rush Medical College, of Chicago, last week, Prof. Moses Gunn delivered the valedictory, which was chiefly an attack upon the National Code of Ethics, and upon the Illinois State Board of Health. The wide publication of the address in the daily papers is likely to prove unfortunate, since it is not calculated to further the interests of the College, or to benefit the professional prospects of the author.

It is the opinion of some shrewd observers that the New Code will seriously diminish both the consultation business of its supporters, and the number of students who will seek instruction in the schools with which they are connected. For honest, truth-loving students of scientific medicine can have no sympathy with those who are willing

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to degrade their calling by affiliating professionally with medical quacks. On the other hand, the irregular practitioners have given formal notice that they have their own specialists, and that they have no wish to consult with those who are now seeking to obtain their patronage. Thus the advocates of the New Code are likely to find themselves in the position of the greedy dog in the fable, who, in snapping at the shadow in the water, dropped the bit he was carrying, and so lost all.

In the mean time, the ball keeps rolling, and the Rensselaer County (N. Y.) Society last week again did itself honor by repudiating the action of the State Society, at Albany, in reference to the New Code.

It is a significant fact, that the two or three medical journals which last year applauded the action of the majority at Albany, have quickly succumbed to the displeasure of their subscribers at their course, and have quietly abandoned their open advocacy of the New Code.

REVIEWS.

MEDICAL ELECTRICITY. A PRACTICAL TREATISE ON THE APPLICATIONS OF ELECTRICITY TO MEDICINE AND SURGERY. By ROBERTS BARTHOLOW, A.M., M.D., LL.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, of Philadelphia, etc. etc. Second edition, enlarged and improved. With 109 illustrations. 8vo. pp. 291. Philadelphia: H. C. Lea's Son & Co., 1882.

WORKS on electro-therapeutics are by no means few, and the fact that Dr. Bartholow's treatise has so rapidly passed to a second edition is practical evidence of its positive merits. It is free from the two objections which hold against most works on the same subject, namely, that they are either overloaded with the details of cases and procedures, or that they are incomplete. It is comprehensive, and at the same time compact. Valuable additions have been made in the present edition.

Among the features of the book worthy of special mention are, the brief but lucid accounts of apparatus; the exposition of the present medical status of Franklinic electricity, including the adaptation of the Toepler-Holtz machine for the production of nerve and muscle reactions; the presentation of the little known subjects of magneto-therapy and thermo-electricity; and the description of Plante's cell, and Trouve's polyscope for storing electricity for medical and other purposes.

Dr. Bartholow's work will largely supplant, for the student and practitioner, the other treatises on electro-therapeutics now before the profession.

SPEECH AND ITS DEFECTS. CONSIDERED PHYSIOLOGICALLY, PATHOLOGICALLY, HISTORICALLY, AND REMEDIALLY. By SAMUEL O. L. POTTER, M.A., M.D. Lea Prize Thesis of Jefferson Medical College. 12mo. pp. 117. Philadelphia: P. Blakiston, Son & Co., 1882.

THE chief value of this book lies in a *résumé* of the bibliography of impediments of speech, and an *exposé* of the various tricks and appliances resorted to by itinerant and other professed curers of defects of speech. This historical portion is admirably done and will amply repay perusal by physicians and others interested in the subject. The physiological portion is unsatisfactory, and in part obscure and unreliable. The defects of speech are arranged under quite a formidable series of Greek appellations, and explained in detail. The pathological portion of the essay is not pathological at all, and is confined to a few sentences indicating spasm in some portion of the articulating apparatus as the source of the infirmity. Therapeutically the temporary benefit resulting from many of the well-known rhythmic and other devices for assisting enunciation, is admitted; and the institution of systematic respiratory, vocal, and articulatory gymnastic movements commended as a discipline far more valuable than any other method of treatment

SOCIETY PROCEEDINGS.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, February 16, 1883.

THE VICE-PRESIDENT, T. G. RODDICK, M.D., IN THE CHAIR.

THE following pathological specimens were presented:

ANEURISM OF ANTERIOR COMMUNICATING ARTERY.

DR. GEORGE ROSS narrated the case. A lad aged 17, was admitted into the General Hospital, on the evening of December 18th, in an insensible state, with stertorous breathing. Eyes closed, pupils contracted, muscles of arm and forearm rigid. Legs rigid and straight. From his friends it was ascertained that he had been well up to a year ago, but within this period he has had several severe attacks of bleeding at the nose. Three months ago he is said to have had an epileptic fit, from which he recovered in ten minutes. For eight days has had severe headache, very bad in the forty-eight hours before present attack. Two hours previous to admission he went out into the yard, where he was found in an insensible condition. On the 19th, he remained in the same state. No albumen in the urine. Towards evening the rigidity of the muscles became less. Eyeballs prominent, and there is slight ecchymosis on right upper lid and under ocular conjunctiva. Left pupil is dilated. On the 20th, arms still rigid, legs relaxed. Has had several attacks of clonic spasms in arms and muscles of the back. Cheyne-Stokes' breathing well marked. Ecchymosis has deepened about right eyeball, and is commencing in the left. Temperature is rising. On the 21st, limbs relaxed, opens the eyes but does not appear conscious. Veins of the optic disks very full, no other intraocular changes. Temperature 102°; pulse 125. The following day he was much worse; sphincters relaxed, coma more profound. Temperature 103°. On the 23d, the temperature rose to 105°, and death took place in the afternoon.

The *autopsy* revealed extensive hemorrhage at the base of the brain, involving the meninges, anterior to the optic chiasm, and extending into the longitudinal fissure, and over the anterior part of the corpus callosum. On separating the orbital surfaces of the frontal lobes, an aneurismal sac, the size of a large pea, was seen springing from the anterior communicating artery and partially embedded in the contiguous brain substance, which was a little lacerated. When removed and washed, the sac was found to arise by a small orifice from the anterior communicating artery

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close to the right anterior cerebral. It was full of dark blood, and had ruptured at the lower surface, the rent being about two millimetres in length. The hemorrhage had extended along the sheaths of the optic nerves to the eyeballs. The other cerebral vessels were healthy. There was no heart disease.

Dr. Ross remarked on the difficulty of diagnosing the case at first, and of the assistance rendered by the development of subconjunctival ecchymoses. In his experience this was a very rare occurrence in cerebral hemorrhage.

DR. OSLER called attention to the fact of the frequency of aneurism of the cerebral vessels, and to the fact that many cases of apoplexy in young persons were caused by them. This was the eighth instance which had come under his observation in the past few years, and all the specimens had been shown at the Society. Of these, four were of the middle cerebral artery, two of the basilar, and two of the anterior communicating. In seven of them, death was caused by rupture of the sac. He remarked that in cases of fracture of the sphenoidal bone, or in instances such as this, where the hemorrhage occurred in the neighborhood of the optic nerves, the subconjunctival hemorrhages would be more common; but when the fracture was in the middle or anterior part of the orbital plate of the frontal, the hemorrhage was into the more superficial parts of the orbit, and more likely to produce ecchymosis of the lid.

ULCERATIVE ENDOCARDITIS, SIMULATING TYPHOID.

DR. ROSS reported the case; that of a man aged 26, admitted to the general hospital on the 2d, in a state of delirium, with temperature 104°, pulse 100, and respiration 28. Though delirious, he would at times answer questions. Face was flushed, eyes bright, pupils small; expression nervous and anxious. Tongue dry, cracked, and brown; abdomen full; marked tenderness in right iliac fossa; no sore spots. Examination of heart and lungs revealed nothing abnormal. The following history was obtained: Had never been very sound in mind, but has been healthy; was at work on January 29th, when he was taken with a severe chill, followed by headache, vomiting, and nausea. Went to bed that evening; became delirious, and has been feverish, with severe headache, ever since. There have been several loose stools each day. On the night of the 2d he was very delirious, talking loudly, and getting out of bed. Passes feces and urine involuntarily. On the 3d, the temperature was 102°, pulse 125, and weak. On the 4th, after a very bad night, the patient was much quieter, dull, and stupid; face dusky; can get no reply to questions; temperature 103°, pulse very weak; passed stools in bed. Patient gradually sank, and died on the next day—the third after admission, and the eighth of his illness. The heart and kidneys were exhibited. The autopsy showed extensive ulcerative disease of the aortic valves, two of which had fused (congenital), and were sclerotic. The vegetations were soft and recent, and there was a small perforation of one segment. The mitral valve was unaffected. The spleen was about twice the normal size, but presented no infarctions. The kidneys were enlarged, and showed six or eight recent infarctions. In the small intestine there were half a dozen spots of hemorrhagic infiltration of the submucosa, the centre of each occupied by a small white necrotic patch (infarctions). In the left occipital lobe there was a spot of recent red softening, the size of a small apple. No other foci in the brain.

Dr. Ross stated that he had thought the case one of typhoid fever from the mode of onset and the pronounced abdominal symptoms. The only suspicious features had been the bright eye and injected conjunctiva, and if a murmur had been heard a correct diagnosis might have been reached. The experience of a considerable number of cases had now made both physicians and attendants at the General Hospital tolerably alive to the subtleties of this disease, but in none of the previous ones with typhoid symptoms had the course of the disease been so rapid.

In reply to a question by a member, Dr. Ross remarked that the state of the valves was certainly such that a murmur might have been expected, but none was heard when he examined the patient the day after admission. The condition of the vegetations would almost prevent a regurgitant murmur.

DR. OSLER exhibited the characteristic micrococci of the vegetations, stained with aniline blue. In this instance there were a few bead-like chains, such as had been noted by some writers. Their relation to the disease was still in dispute. They are found in the simple warty vegetations and in the outgrowths often met with in old sclerotic valves; indeed, they appear elements common to various endocardial processes which have very different symptoms and arise under different conditions. Valves which are malformed, as in this instance, appear specially prone to be attacked with this form of the disease.

CALCIFICATION OF THE TOOTH-PULP.

DR. OSLER showed, for DR. LOVEJOY, the section of a first molar with the pulp calcified. The tooth was large and not decayed, but was at times so painful that it was thought advisable to extract it. The cavity was filled with a mass of a stony hardness, darker than the dentine, but having much the same appearance. A narrow space separated it from the wall of the cavity. In some animals the pulps become converted into secondary dentine, and in old people progressive calcification is not uncommon. In this case the man was vigorous, middle-aged, with good teeth.

CHYLOUS ASCITES.

DR. ROSS showed a bottle full of milky looking fluid which had been removed from the peritoneum of a lad under his care, who had albuminuric anasarca. The abdomen was much distended, and several pints of fluid were removed. There were no formed elements in the fluid.

DISEASED PLACENTA.

DR. GARDNER exhibited a diseased placenta from a patient who last menstruated on the 12th of August, quickened two days before Christmas and was delivered of a dead macerated fœtus on the 7th of February. The specimen was much shrunken, measuring about eleven centimetres in diameter and one centimetre in thickness. In general the substance was much paler and firmer than that of the normal placenta. There were a number of firm nodules, evidently the result of placentitis or of extravasated, decolorized, and organized blood-clot, according to the views variously held by authorities on the subject. Interspersed between these nodules were a number of cavities varying in size, from a cherry to an almond, filled with recent blood-clot. The membranes were opaque and very friable, a large part remaining in the uterus and requiring introduction of the hand for its removal after the expulsion of the placenta. The patient is the mother of five children, all born at full term after normal pregnancies. During the pregnancy in question she had been œdematous to a slight extent, had suffered from a feeling of general weakness and craving appetite. When first seen by Dr. Gardner, four days before her delivery, she was suffering from violent headache of the frontal and vertical region, evidently of uræmic character, as there were distinct general anasarca and slightly albuminous scanty urine. For

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nearly three weeks the fœtal movements had become gradually more feeble, and during the last three days had entirely ceased. At the same time that the movements ceased the uterine tumor sank towards the pelvis and had lost its normal elastic feel. Fœtal heart-sounds were inaudible. The headache appeared at the same time as the cessation of fœtal movements and collapse of the uterus, with renal insufficiency. The fact seems to bear out the pressure theory of uræmia in pregnancy.

Treatment before labor consisted in purgative doses of compound jalap powder, with full doses of bromide of potassium and chloral. As the latter gave no material relief to the headache, it was soon discontinued, and fifteen-minim doses of Battey's sedative solution of opium substituted with marked success. After the uterus was emptied the urine increased in quantity, the headache disappeared, and, with the exception of a slight attack of pleurisy, the patient made a good recovery.

APOPLEXY INTO THE VENTRICLES.

DR. ARMSTRONG mentioned the case; a man, aged 37, who had consulted him with severe headache, slight intolerance of light, and vomiting. Patient was under treatment for secondary syphilis. In a few days, he felt better and was able to go out. On Saturday, the third, he took supper in the evening, but vomited it, complained of great pain in the head, became comatose, and died at eleven o'clock. A post-mortem revealed extensive hemorrhage into the lateral ventricle, and the blood had also passed into the fourth. The walls of the lateral ventricle were unbroken, and the source of the hemorrhage undetected.

THE TREATMENT OF PUERPERAL SEPTICÆMIA BY IODOFORM SUPPOSITORIES.

DR. ALLOWAY presented the records of six cases of puerperal septicæmia, three of which had been treated by a new method, viz., the introduction into the uterine cavity of iodoform suppositories. He referred to the care and anxiety which these cases caused to the attendant, the frequent visits necessary if the ordinary method of repeated intrauterine injections is followed, as in general practice the assistance obtained is rarely skilled enough for this. The advantages of iodoform in general surgery were now fully recognized, and it occurred to him that they might be extended to the treatment of the raw placental surface and to the lacerations and bruises of the passages. The site of a separated placenta had been well compared to the stump of a limb after amputation. With this remedy we had the advantages not only of a topical action, but, applied in the manner directed, the effect was continuous, and the vapor, or whatever it was, given off, permeated to all parts. Too often with injections, the superficial parts were cleansed and in an hour or so, unless repeated, the discharges were again fetid. He believed that with the iodoform we could get a more effectual disinfection of the intrauterine cavity in these cases than with the ordinary solutions and the trouble of constant injections was completely obviated. The author referred to the current views on septicæmia, particularly to the formation of a virus by the bacteria in the decomposing discharges, and suggested that if, as Binz has shown, the iodoform controls the activity of the protoplasm of the colorless blood-corpuscles, it may do the same with the bacteria. In carrying out the treatment he used a Sims' speculum, washed out the uterus first with plain or carbolized water, and then, with a tent-inserter, passed the suppository far up into the fundus. He used them of the strength of ten, fifteen, or twenty grains, and usually introduced one night and morning. No poisonous effects had been noted.

The author first read the notes of three cases, two of diphtheria of the passages, which were treated successfully with injections of carbolic acid and Condy's fluid; the third, a very severe case of septicæmia, which he had not treated during the entire illness, but which had had no injections, and terminated fatally.

The cases in which he had used the iodoform were as follows: Mrs. B., aged 23, confined June 20, 1882; fœtus nearly at full term, but had been dead some time and was decomposed; fluids very dark and offensive. Uterus was washed out immediately with carbolic solution, and the nurse was ordered to syringe the vagina with the same every three hours. Up to the twenty-third the patient did well, but in the afternoon of this day she had a chill, and when seen in the evening the temperature was 104.5°, and the pulse 123. There was no pain, discharge slight, a little offensive. The cavity of the uterus was washed out with warm water, and a fifteen-grain iodoform suppository inserted. On the twenty-third the temperature was 101°, pulse 110. Uterus again washed out and another suppository inserted, and in the evening a third. No further chills; patient doing well. On the twenty-fifth the temperature was 99°; same treatment followed. She made a good recovery.

Mrs. E., aged 30, fourth pregnancy, confined September 24, 1882. Easy labor; did well until the 26th, when she had intense perimetric pain and a severe chill; temperature 103.5°, pulse 126; ordered poultices, and gave Battey's solution of opium. Followed same local treatment as in former case. In the evening the temperature was 104°; introduced another ten-grain suppository. 27th, pain gone, temperature 100°; same local treatment morning and evening. 28th, better, continued the suppositories. By the 30th, the temperature was normal and she made a good recovery.

Mrs. G., aged 25, third pregnancy, confined December 13, 1882. Dead twins at the sixth month. Afterbirth came away and seemed entire. Patient has had a series of chills in the past twenty-four hours, and after delivery the temperature was 105°, pulse 100, and she was in a very excited state. A portion of adherent placenta was removed, and grs. xx of quinine were given. On the 14th she was quieter, temperature 103°, pulse 140; uterus was washed out and two ten-grain suppositories inserted. No tenderness. 15th, temperature 100°, pulse 112; same local treatment. On the 16th, had diarrhœa; had no suppository last evening; discharge this morning a little fetid; temperature 103°, pulse 124; two of ten grains each inserted, and in the evening a third. To the 21st, she had one every morning and evening. On the 22d the treatment was stopped; temperature normal.

DR. TRENHOLME thought the practice a reasonable one; he had had no experience with the remedy; indeed, he was one of those fortunate ones who have never had a case of puerperal septicæmia in private practice.

DR. GARDNER had used iodoform in lacerations of the vulva and perineum, and with advantage. The tenacity with which it adheres to raw surfaces, and even remains after injections, is a point in its favor. He had used it also in chronic endometritis, and, although it had diminished the pain, no permanent good resulted. He had been in the habit for some time of rendering sponge tents antiseptic with iodoform.

DR. GEORGE ROSS referred to diphtheria of the vagina after delivery, and remarked upon its insidious onset in a case which he had treated. He thought Dr. Alloway's suggestion very valuable, and could speak of the benefit he had seen follow in one extremely severe case of puerperal septicæmia. The fetor was removed and a decided improvement manifested within forty-eight hours. He did not think there was any danger of toxic effects in the doses mentioned.

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DR. CAMERON spoke of the great influence of iodoform in subduing pain, but believed the special advantages in this form of treatment were the constant presence of the antiseptic in the uterine cavity and the certainty that all parts would be subjected to its action. In the cases reported, some of the benefit might reasonably be attributed to the washings, which should not be neglected in any case.

DR. ARMSTRONG thought that those cases in which the septic trouble was due to decomposition and sloughing within the uterine cavity could alone be appropriately treated in this way.

DR. F. W. CAMPBELL believed that the suppositories could prove of great service, particularly in cases of retention of portions of the placenta.

DR. ALLOWAY stated that he had been induced to lay his limited experience before the Society, in the hope that other members would test the practice. For his own part, he felt much more confidence now in the treatment of these cases. In illustration of the antiseptic powers of iodoform, he showed two bottles of meat infusion, which had been allowed to decompose; into one he had put a little iodoform and the decomposition had been checked, the putrid odor was removed, and the solution rendered, as was very apparent much clearer by the death and subsidence of the bacteria.

BRAINS OF TWO MURDERERS.

DR. OSLER presented the brains of Richards, who murdered a comrade at Sweetsburg, Que., and of O'Rourke, who killed an old man and his daughter, at Milton, Ont. Richards was a hardened criminal, had been in the army, and had been discharged as unfit morally. He cut his throat on the morning of the day fixed for his execution. His brain was large and well developed; the asymmetry between the convolutions and fissures of the hemispheres very slight; the organ was not of the confluent fissure type to any special degree; the secondary and cross sulci were not numerous, and the majority of the convolutions were arranged in a typical manner.

O'Rourke was a man of no education, had had illusions, had served in the penitentiary. The plea of insanity was raised in his defence. His brain was under-sized, the cerebral hemispheres scarcely covered the cerebellum, and there was marked asymmetry between the fissures and convolutions of the two sides. No special degree of confluence of the fissures, except in the right parietal lobe. In both frontal lobes there was a partial splitting of the second gyrus and an approach to the type of four frontal convolutions. The secondary sulci were unusually abundant. The brains were preserved by Giacomini's method.

PROVINCIAL HEALTH ACT.

DR. LAROCQUE, the Health Officer of the city, called the attention of the members to the Act now before the Legislature, and gave a sketch of the progress which had been made during the past few months. The Act provides for the establishment of a Board of Health for the Province, to be composed of three medical men, three commissioners, and one sanitary engineer. He urged the members to do all in their power to get the bill passed this session.

NEW YORK SURGICAL SOCIETY.

Stated Meeting January 23, 1883.

T. M. MARKOE, M.D., PRESIDENT, IN THE CHAIR.

JAMES L. LITTLE, M.D., read a paper on

COMPLICATIONS ARISING FROM UNDESCENDED TESTICLES.

There are three positions in which a testicle may be detained in its transition from the abdominal cavity to the scrotum.

1st. In the abdominal cavity near the internal ring.
2d. In the groin near the external ring.
3d. In the inguinal canal.

A number of such cases have come under my observation. The most common situation has been where the testicle was retained just outside the canal near the external ring. I have met with one case in a child in which both testicles were retained in the abdominal cavity, as no trace of them could be felt in the canal. In this situation a number of cases have been reported in which the testicle has become the seat of malignant disease—no instance of this kind, however, has come under my observation.

Cases where the testicle is arrested just outside of the external ring are not infrequent. In several that I have seen, the testicle could be pushed back into the inguinal canal, but as soon as pressure was removed it would assume its original situation. A few years ago I was called to see a patient in whom a testicle in this position was the seat of gonorrhœal epididymitis. It was a patient of about eighteen years of age, who had been suffering from gonorrhœa for some weeks. His symptoms were very severe; constant vomiting, with intense pain in the groin and lumbar regions. Upon examination, a hard swelling was found situated just outside of the right external ring, with the absence of the testicle from the scrotum. This swelling was about double the size of the testicle of the opposite side, and resembled a strangulated hernia, both in symptoms and appearance. The history, and the absence of the testicle from its normal situation were sufficient for diagnosis.

Second: on August 17, 1868, I was called to see a patient who had a strangulated hernia; his history was as follows: he had suffered from what he supposed was a femoral hernia for many years, for which difficulty he had been in the habit of wearing a truss. The morning on which I was called he had gone out for an early drink, and neglected to apply his truss. The rupture came down and became strangulated. Upon examination I found a tumor about the size of an orange on the right side just above Poupart's ligament resembling in many respects a femoral hernia which had rolled up and over the ligament. Failing to reduce it by taxis, I etherized the patient, and found upon examination that he had an undescended testicle situated just outside of the external abdominal ring, and that the tumor was formed by the distention of the inguinal canal. Failing to reduce it by taxis under the anæsthetic, I cut down through the walls of the canal, and found about ten inches of the gut in a strangulated condition. The seat of the stricture was at the internal abdominal ring. The testicle was lying behind the gut just outside of the external ring. The internal ring was enlarged and gut returned, when the patient made a good recovery. In this case the testicle was normal in size and appearance, and I have no doubt could be easily pushed up into the canal, so that his truss was worn without inconvenience.

The next case, sent to me by Dr. Wm. A. Hammond, is one in which the testicle was retained in the inguinal canal. The patient was twenty-six years of age, and had the following history: He had never noticed anything like a testicle on the right side until three years before he came under observation, when, while exercising on a trapeze, he received a blow on the right side of the abdomen, which gave rise to severe pain, similar to that produced by pressure upon the testicle of the other side. About a month afterward he noticed a small and soft tumor on the right side, just above the external ring. From that time, after any violent exercise, straining, or long walking, the tumor would increase in size and become very painful. After a few days the swelling would subside, but the

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tumor would never become as small after an attack as it was before. Last winter the patient wore a truss for some time without any benefit. The tumor gradually increased in size. On examination only the left side of the scrotum was found to be developed, which contained a testicle of normal size. In the right inguinal region was a swelling extending up in the direction of, but some distance above, the inguinal canal. A moderately firm and perfectly movable tumor could be felt. This could be moved so as to lie almost at right angles to its normal situation. Firm pressure upon the upper part of the tumor gave rise to a sensation similar to pressure upon a testicle. The tumor was about four inches long by two broad. The external abdominal ring could be distinctly felt, but was so small that the little finger in invaginating the tissue could not be passed into it.

On November 24th the following operation was performed at St. Luke's Hospital, with all the antiseptic precautions. The coverings of the tumor were rendered as tense as possible by grasping it with my left hand, and an incision of about five inches in length was made over the most prominent part, nearly parallel to Poupart's ligament. The tissues were divided until the peritoneum was reached. This was opened upon a director, and the tumor was then forced out from its bed. Its attachments were composed of folds of peritoneum, extending along its entire inferior surface. A large number of tortuous vessels were seen beneath this peritoneal pedicle, more abundant at the upper extremity than at the other portions. A double catgut ligature was passed through the centre of the pedicle and tied on both sides. Another ligature was applied embracing both halves of the pedicle, and the tumor was then removed. No exploration of the wound, with a view to ascertaining whether it communicated with the abdominal cavity, was made. The deep parts of the wound were brought together with three Lister's leaden-plate sutures, and the superficial wound was united by the ordinary silk suture. The wound united by primary union without any untoward symptom.

On examination by the pathologist of the hospital, Dr. Satterthwaite, this tumor proved to be a round-cell sarcoma. In shape it was a flattened ovoid, while its dimensions were four inches in length by two broad, and one and one-half thick. On section its cut surface was of a pinkish color, simulating brain substance both in consistency and feel. It was enclosed in a coat of peritoneum, which formed its capsule, while in the folds that were given off posteriorly were portions of the vas deferens and spermatic vessels. At its anterior and external portion there was a trace of the normal tissue of the testis.

In conclusion, it seems to me that in all cases where a testicle is situated either in the canal or just outside the external ring, and becomes a source of annoyance to the patient, it would be judicious to advise its early removal.

In the case which I have related, complicated with hernia, I have since regretted that I did not remove the testicle at the time of the operation, for unless it could have been readily pushed back into the canal, a condition which would hardly obtain after the operation, a truss would have been worn with considerable difficulty. The after-condition of the case I have related I have never had the means of ascertaining.

DR. E. L. KEYES had had one case complicated by omental hernia, in which the undescended testicle could not be kept outside of the external ring by a truss, although it could be easily pushed through the opening. The patient had had a number of accidents in the way of pain, and at intervals, when he did not wear a truss, the hernial lump would get down and cause a swelling in the groin, which he had always been able to replace. Finally one of these swellings occurred during the absence of the truss, and the patient failed to replace the lump. He then suffered from symptoms arising from partial strangulation, continuing for a number of months. Dr. Keyes operated upon him, and found that he had a hard portion of omentum strangulated at the internal ring with a testicle just below it. He removed the atrophied testicle, and cut off the piece of strangulated omentum. He ligated the cord very high, and left the pedicle of the omentum in the internal ring, which was entirely filled by it. The operation was performed under antiseptic precautions about ten years ago, and the patient made a rapid recovery. He subsequently wore a truss for a considerable period, after which he experienced no trouble whatever. He had also since been the father of several children. The other testicle was normal in structure and position.

Whether it was justifiable to cut out the testicle in these cases before some emergency required the operation, he was uncertain; he was not prepared to say that he would advise it. He had frequently seen these undescended testicles in young children, and believed that if sufficient care and attention were given, that the testicle might be gradually pulled down, and finally be made to remain permanently outside of the external ring, in a certain proportion of cases, until it developed at puberty, and then no further trouble would follow. But it is exceedingly difficult to get a retentive pad that will functionate satisfactorily, even if the testicle can be drawn down and held outside the external ring with the fingers.

In answer to a question asked by the President, Dr. Keyes said that he had had one case in which he had succeeded in keeping the testicle outside of the external ring, but he was not able to replace it in the scrotum. To succeed in any of these cases required a long time, and great care and patient attention on the part of all concerned. He had failed in the effort several times.

DR. SANDS said that Dr. Little had made one remark which perhaps should be qualified. He having suggested that whenever a testicle, situated in the inguinal canal, became an annoyance, it should be removed. It was well known that the operation for the removal of a testicle situated in the inguinal canal was one of much greater danger than the ordinary operation of castration, which is attended with little risk if it is carefully performed. But when the testicle is situated in the inguinal canal, it is very liable to be surrounded by peritoneum, which may have to be divided in order to remove the tumor; and it seemed to him that such an operation should hardly be performed for the relief of a mere annoyance. He did not doubt, however, the propriety of removing a testicle so situated, when it became the seat of a morbid growth, although under these circumstances, the operation was attended not only with greater risk than the ordinary operation of castration, but with a greater improbability of a complete removal of the disease. He thought that in quite a large proportion of the cases in which it had been done, the malignant disease had already involved the lymphatic glands in the abdominal cavity. Here it might be said that valuable evidence could sometimes be obtained on this point, by manual exploration of the rectum. A man came under his observation, in Bellevue Hospital, some years ago, who entered the institution for the purpose of submitting to castration; the left testicle was very much enlarged, and the diagnosis of malignant growth of the testis was readily established; the tumor was so large, however, that it was suspected the disease had extended into the abdomen. Dr. Sands was unable to settle this point by external examination, on account of the thickness of the abdominal walls, but he found, upon making firm pressure

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in the left lumber region, a tenderness and a feeling of resistance, not noticeable upon the opposite side. He removed the doubt by passing the hand into the rectum, when, with great ease, a swelling could be felt in the abdominal cavity, evidently due to infiltration of the lumbar glands: accordingly he abstained from operation.

He recalled another case in which he failed to appreciate the presence of an abdominal tumor in a young man whose testicle he had previously removed for sarcoma. The patient made a good recovery, but months afterward he showed signs of suppression of urine, and on this account he came under observation a second time. Examination of the abdomen failed to discover the cause of the trouble. Various medicines were given to cause the kidneys to act, but they failed. Death occurred, and inspection of the abdomen revealed a large mass of cancer, situated upon the posterior abdominal wall, probably originating in the lymphatic glands. The mass was so situated as to completely prevent the passage of urine through the ureters, and the so-called suppression of urine, was really retention of urine, both of the ureters being greatly distended above the point of obstruction.

He had met with one instance in which the testis had descended beyond its usual position, and was situated in the perineum. The person who was the subject of this malposition was a young man, who complained that he was unable to ride on horseback without suffering from pain, due to pressure upon the misplaced organ, which was of about half the size of the opposite testicle. Dr. Sands performed an operation with the intention of placing the testis in the scrotum, but he found the operation to be impracticable, and therefore removed the testicle, when all unpleasant symptoms disappeared.

DR. LITTLE stated that Mr. Curling gave the same advice in regard to the treatment of undescended testicle as that suggested by Dr. Keyes, and he related several cases in which a truss was used to prevent the testicle from slipping back through the external ring into the canal, and Mr. Curling also advises that in cases where the testicle is situated in the inguinal canal and can be readily pushed back into the abdominal cavity the patient should wear a truss with a pad over the inguinal canal, so as to keep the testicle back in the abdominal cavity, it being a much more comfortable place for the patient to wear his testicle than in the canal.

DR. YALE said that the latter point mentioned by Dr. Little was illustrated in a case which came under his observation in the Presbyterian Hospital. A young man had a partially descended testicle. He had been examined, and had been told that he had a hernia, for which a truss was applied, and it had the effect of crowding the testicle back into the abdominal cavity, but subsequently a strain brought the organ down into the inguinal canal, and he had considerable pain, together with symptoms not unlike those attending strangulated hernia. As the testicle could not be brought farther down, Dr. Yale with considerable difficulty succeeded in returning it within the cavity, when the symptoms were relieved, and no further inconvenience had been suffered from the presence of the testicle in the abdomen.

DR. KEYES said that Godard had directed attention to the fact that the cryptorchid is sterile while a monorchid is not sterile, and that the testicle is more or less damaged if it is retained in the inguinal canal; that those which are retained just within the inguinal canal are in a condition of partial atrophy, and that the other testicle is correspondingly hypertrophied. Whether this partially atrophied testicle is incapable of secreting sperm properly, Dr. Keyes was unable to say. Also whether, if the testicle is in good condition, it would be harmed by being pushed into the abdominal cavity and retained there, he was unable to say. He had met with one cryptorchid, and in that instance the man was potent, and had emissions, but was sterile. His seminal fluid contained no mature spermatozoa.

DR. POST asked if cryptorchids could beget children.

DR. KEYES said that such cases were upon record, but that the children did not generally resemble the father; that is, so far as he knew, all such cases of alleged paternity had been shrouded with considerable doubt.

DR. SANDS thought it would be unsafe to say that testicles were useless in persons who had power of copulation. There is no exception to the rule that where both testicles are removed, the power of copulation remains for only a time. Sir Astley Cooper had recorded one case in which a man had lost both testicles, but retained the power of copulation for perhaps a year, after which the desire and the power gradually ceased. He believed that usually the desire and ability to copulate implied the existence of some testicular elements; although the general fact is that those who have both testicles retained are usually sterile. He should think that if subjects who were sterile had normal desires, and were able to gratify them, the most rational supposition would be that normal tissue of the testicle existed in a greater or less amount, but that the spermatic fluid was not able to make its way into the seminal vesicles. He had met with a singular instance of undescended testicle in the case of a young man upon whom he once operated for strangulated hernia. The case was interesting, as showing that a concealed testicle might give rise to a peculiar form of hernia. The man was twenty-five years of age, and was said to have been addicted to sexual dissipation. His scrotum was empty, and he had a hernia upon the left side which became strangulated. Dr. Sands found, upon proceeding to the operation, that only a very slight protrusion existed at the external abdominal ring, in consequence of its small size. Having divided a stricture at the external abdominal ring, and, as he supposed, pushed the intestine back into the abdomen, he introduced his finger, and discovered that he had not relieved a strangulation which existed at the internal abdominal ring, and that, while only a small portion of the intestine had escaped through the opening in the external ring, a large mass remained in the inguinal canal. The stricture was divided at the internal ring, and he was then able to push the intestine into the abdominal cavity, for which he had first mistaken the hernial sac. A small testis was found in the inguinal canal. The person had a well-developed penis, and had an abundance of hair upon the pubes. He also had a beard. Dr. Sands thought that in most cases in which the testicles were retained and the individual was impotent, there are but few evidences of puberty.

DR. G. A. PETERS asked if a testis retained in the cavity of the abdomen was not quite frequently the seat of malignant disease, or more frequently thus affected in that position than when within the canal, or just external to it.

DR. KEYES remarked that there was an impression to that effect, but he did not believe that the statistics had been sufficient to substantiate it.

DR. LITTLE remarked that cases had been reported in the *Medico-Chirurgical Transactions*, *British Medical Journal*, *Medical Times and Gazette*, and other journals, where undescended testicles have become the seat of malignant disease, and authors, for instance, Gross, in his work on Surgery, state that the danger of the detention of the testicle in the inguinal canal, or abdominal cavity, is that it is prone to become the seat of malignant disease, but no statistics are given to sustain this statement.

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COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, February 7, 1883.

THE PRESIDENT, ALFRED STILLÉ, M.D., IN THE CHAIR.

DR. CHARLES K. MILLS read a paper on

ARSENICAL PARALYSIS,

based on a series of cases of arsenical poisoning which occurred on Nov. 2, 1882, at Norristown, Pennsylvania. The poisoning was brought about chiefly through eating pumpkin-pie, which it was subsequently proved contained a large amount of arsenious acid.

On Dec. 24th Dr. Mills saw one of these cases at Norristown with Dr. E. M. Corson, the physician in attendance. On the third of January, 1883, the case was brought to the Philadelphia Orthopædic Hospital and Infirmary for Nervous Diseases, to be under the care of Dr. S. Weir Mitchell, with the following history.

H. G., æt. 24, single, a lawyer, prior to Thursday, Nov. 2, 1882, was in good health. He was taken sick immediately after having eaten freely of pie which was subsequently found to contain poison. He had an attack of vomiting which lasted a few minutes only. He had several similar spells of vomiting during the afternoon, and from that night until Saturday morning the vomiting was almost continuous. It then began to subside, ceasing entirely Monday afternoon, except that early Tuesday morning he vomited a dark grumous mass. Just before vomiting this mass he had a sensation of constriction or contraction in the muscles of the chest and throat, and the facial muscles were much contorted. He was not purged at any time, in fact, his bowels were not opened from Thursday, November 2d, until Wednesday, November 8th. During the whole time that the vomiting persisted he had but little more pain than would be accounted for by the retching and vomiting. Prostration was very great from the first. Nov. 7th he attempted to get out of bed, but fainted, and remained for some time in a semi-conscious state. About this period he began to have marked fever.

Six days after taking the poison, the patient noticed for the first time a sensation of aching and numbness, chiefly about the knees, which, in a few days, extended towards his feet. Three days later the same sensation began in the fingers of both hands, and soon extended to the wrists, beyond which it never passed. His brain remained unaffected. His legs below the knees were now almost completely paralyzed, and there was some loss of power below the elbows. His face was considerably puffed and swollen. His general condition and symptoms remained without change until four weeks after the ingestion of the arsenic, when he began to suffer great pain. The pains began in the knees, and speedily extended downwards. Aching was always present, but frequently the pains were boring, tearing, or lancinating. They were accompanied by a sensation like that produced by a strong faradic current. Two days after the coming on of the pain in the legs, the fingers and hands also became the seat of aching. In one week the pains began slowly to abate; but, up to the present time, he has had more or less pain, varying very much in character. By the middle of December, the numbness and aching, which had previously been below the knees, had extended above them a distance of several inches. His lower extremities felt as if encased in a cylinder as high as the limits of the numbness. The symptoms in his upper extremities did not change noticeably. The loss of power in the thighs increased with the spreading upwards of the sensory perversion.

The patient was seen by Dr. Mills Dec. 24th, but the notes are from examinations made between January 10th and 17th, nearly two months and a half after the poisoning.

He presented no brain symptoms, and no disturbances of the special senses of sight, hearing, taste, or smell. He was much emaciated. Wasting of the limbs was extreme.

Paralysis below the elbows was marked, but not complete. The extensors and supinators were most decidedly affected. The fingers could only be flexed about one-half. Movements of the thumbs and the small movements of the fingers were impaired. The loss of power was slightly greater in the right limb than the left. At both elbows were marked contractures at about right angles. The angles could be reduced to about 160°, but any attempt to carry the straightening further caused pain in the flexor tendons. Both legs were paralyzed completely below the knees. All movements of the toes and feet were abolished absolutely. The legs in their entirety showed a tendency to rotate outwards, the feet, however, assuming the equino-varus position. Contractures were not present at the knees, but at times the limbs would assume a semiflexed position, these acts of flexure being accompanied by cramp pains in the flexor muscles of the thighs. He had jerking both in the legs and arms not infrequently.

The bowels were very torpid. The urine showed an excess of phosphates; but neither albumen nor sugar was present.

Farado-contractility was abolished in all muscles below both knees. Above the knees, the extensor and flexor groups and the sartorius were examined, and the faradic reaction was found to be greatly diminished, but not wholly absent. The response was better to nerve than to direct muscular applications. The muscles below the knees would not respond to weak galvanic currents. To currents of medium strength they responded, but not normally.

The reactions were those of degeneration. Anodal closing gave the strongest reaction; cathodal closure came next. Slight contractions followed both anodal and cathodal opening. The contractions were at first sluggish, though vigorous, increasing after a few trials, and then quickly exhausting.

In both upper extremities farado-contractility was decreased, but not lost; the diminution was much greater below than above the elbows. Below the elbows the faradic excitability was rapidly exhausted. To the galvanic current the reactions of degeneration were present, but not so decidedly as in the legs. Anodal closing gave stronger reaction than cathodal. With moderately strong currents tetany was produced at the anode.

Both patellar reflexes were abolished. The retraction of the testicle, known as the cremaster-reflex, can usually be awakened by irritation of a certain definite region of the thigh extending from the groin nearly to the knee. Gentle irritation of the skin of the inner aspect of the right thigh and leg of the patient, as far down as the malleolus, caused very vigorous retraction of the right testicle. Sometimes, but not usually, both testicles were retracted. Similar irritation of the left thigh and leg led to movement of the left testicle, which was marked, but not as vigorous as that exhibited by the right from irritation of the right limb. Now and then, in making this test, the unilateral movement of the left testicle, from irritation of the left thigh and leg, was followed a moment later by an imperfect retraction of the testicle of the opposite side. A similar effect was not produced in any of my examinations by irritation applied to the right limb; neither did excitation of one side cause motion in the other side only.

On admission the surface temperature of each calf

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was 95° F. He usually complained of his legs feeling to him unduly warm.

Late in November transverse white bands were observed across the finger-nails about two lines from their posterior limits. The nails were not furrowed, but simply showed white markings. As the nails have slowly grown these lines have remained.

The fingers and forearms were hyperæsthetic, but at the same time the patient could not determine with any accuracy as to one or two points on testing him with the æsthesiometer. A similar condition, but more marked, was present in the feet, legs, and as high as the middle of the thighs. The muscles were very sensitive. Applications of hot and cold water were discriminated readily.

The pulse, during the time of these observations, ranged between 107 and 148, and was nearly always more rapid in the morning than in the evening. The respirations ranged between 20 and 24, standing usually at about 24. The temperature ranged between 97.8° F. and 99.8° F., but commonly was not much either way from the normal.

On admission to the hospital the following treatment was instituted by Dr. Weir Mitchell; Applications of ice and hot water, alternately, were made three times daily for ten minutes at a time to his arms and legs from the elbows and knees downward. Surface massage with cocoa-nut oil was used once daily. Ice-bags were applied to the spine for one or two hours twice daily. One grain of the extract of ergot of the new U. S. P. was given every two hours, and this was rapidly increased until thirty grains daily were administered. After continuing the use of the ergot for a week, the patient's stomach became disordered, and tincture of belladonna in doses of five drops every three hours was substituted. Fifteen grains of chloral were administered occasionally, and sulphate of morphia, at first $\frac{1}{25}$th grain, and eventually increased to $\frac{1}{16}$th grain, was ordered, to relieve pain when necessary. He was placed on the ordinary full diet of the hospital, with the addition of milk three times daily and beef-tea twice daily.

Dr. Mills made an examination of the patient to note the effects of treatment on Feb. 7th. He has improved steadily day by day; his general strength has increased; he has regained almost entirely the use of the muscles above the knees; he has also much better use of his forearms and hands, particularly the latter, being now able to pick up small objects. The "wrist-drop" has improved greatly. He has much less pain, aching, and numbness below the knees; the legs below the knees, however, still remain paralyzed, but are not so completely helpless. He has every appearance of progressing steadily to recovery.

Dr. Mills then gave, in a few words, all the information he has been able to obtain as to the symptoms shown by the other victims of the poisoning.

Six others, besides the foregoing patient, were poisoned. One of these was a little boy, four years old, I. S., to whom a piece of the fatal pie was given as a reward for going on an errand. He died within ten hours, and there is no knowledge of observations as to paralysis or other manifestations of involvement of the nervous system.

M. S., a sister of the little boy, ate a very little of the pie, and suffered to some extent, but not seriously.

C. H. G., the father of the patient, died six days after the ingestion of the arsenic. Besides severe gastro-intestinal symptoms, he suffered with pain in his head, back, and limbs, was delirious for some hours, and was almost completely paralyzed.

Mrs. G., mother of the patient, ate a little of the pie and had an attack of vomiting. Two days later she ate a piece of custard, which was also found to contain arsenic, and was attacked with vomiting. A few days later, weakness of the legs, with aching and numbness, came on, and the right foot and leg became swollen and inflamed. She gradually recovered.

Mrs. V. ate a mouthful or two of the pie and custard containing the arsenic, and suffered with vomiting, etc., for three days. She has since had paresis and paræsthesia of the legs.

Mrs. F., who ate freely of the poisoned food, suffered severely from gastro-intestinal symptoms. She has been paralyzed from the elbows to the ends of her fingers and from the knees to the toes. She complained of numbness and coldness in the limbs, and a feeling as if a cord was tied tightly around the waist. She had extreme pain in the paralyzed extremities. She has greatly improved, is riding out daily, can stand without aid, and can even walk a little with assistance. She still has some pain in the hands and in the soles of the feet, but they are not tender to the touch. She has some anæsthesia of the hands and feet, especially of the latter.

A careful analysis of the history and symptomatology of the case detailed, compels Dr. Mills to conclude that in well-marked arsenical paralysis we have to deal with a diffused myelitis, decided motor, trophic and sensory bilateral phenomena being present.

Christison describes two classes of cases of arsenical poisoning in which the victims die early without paralysis, and a third class of what he terms subacute cases, with moderate gastro-intestinal inflammation. "In the later stage these cases are apt to show marked nervous symptoms: coma, epileptoid attacks, mania, tetanus, hysterical seizures, partial paralysis resembling lead paralysis when affecting the extremities; contractures may exist."

In 1881, Popow, of St. Petersburg, published an essay upon the pathological anatomy of arsenical paralysis as produced artificially in animals. The work of Popow was carried on under the guidance of the distinguished neurologist and microscopist, Prof. Mierzeyewski, and Seguin considers his essay as in many respects the most important contribution yet made to the subject. Popow concludes that arsenic, even in a few hours after its ingestion, may cause acute central myelitis or acute poliomyelitis; that in chronic cases pathological changes are found in the white as well as in the gray substance, constituting a diffused myelitis; and that the peripheral nerves remain normal, even three months after intoxication. Seguin gives condensed accounts of a few of the cases reported in the literature of the subject, and also reports three cases of his own, all would be suicides with Paris green. His conclusions are practically the same as those of Popow. According to Seguin, whether the myelitis is strictly arsenical, *i. e.*, caused by the direct effect of the arsenic on the tissue of the spinal chord, or whether it is produced (as are many forms of myelitis) by the irritation of peripheral neves (cutaneous, intestinal, and gastric nerve-endings), is a question which cannot at present be definitely solved, but which presents an interesting field for future research and speculation.

Dr. Mills' attention has been called by Dr. J. H. Lloyd to a case of suicide with arsenic, not before reported, which happened some years ago in Bucks County, and was under the care of the late Dr. Hendrie. Anæsthesia and paralysis were so marked that the man declared that his legs were cut of, and died in that belief.

DR. S. WEIR MITCHELL asked if the urine had been examined with care in the early stages of the case? Of late there had been no evidence of trouble, and if at a former period there was albumen, it was no longer present. Perhaps it was not generally known that

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arsenic, in medicinal doses, was in rare cases, as he pointed out many years ago, the cause of more or less albuminuria. As concerned diagnosis, he had always looked on these grave forms of paralysis from arsenic as due to myelitis, and saw much in this case to support and nothing to oppose this opinion. Among the symptoms on which the author of the paper had dwelt least were the frequent twitches of the limbs, especially in sleep, and the intense general tenderness of the muscles, which disappeared readily under the use of massage. The pearly tinted band on the nails, about one line wide, had not the slightest indentation, and was unlike anything in the way of an indication of arrest of nail growth which has ever come to his attention.

DR. ROBERTS BARTHOLOW said that these forms of arsenical poisoning, affecting the nervous system, present many remarkable features. It has long been known that there are cases in which profound depression of the nervous centres, coma, and insensibility, have been caused by large doses of arsenic, without any local irritation—without gastro-intestinal inflammation. On the other hand, Virchow informs us, that there are cases of acute arsenical poisoning which cannot be differentiated, either in respect to the symptoms observed during life or in the morbid anatomy, from the algid stage of cholera. The author of the paper did not refer to the fatty degeneration of the intima of the vessels, or to the same change occurring in the epithelial structures of various organs, but he gave an account of the other changes, all of which show the profound alterations to which the tissues of the body in general are subjected, and which tend to prove the correctness of Ringer's view, that arsenic is a protoplasmic poison, and as such leaves no part of the organism untouched. There is doubtless a community of actions amongst the poisonous metals, and all affect the system to a less or greater extent in the same way. The metals are so largely employed in trades and in domestic life in our day, that many cases of obscure nervous diseases may have their origin in this way. In respect to the treatment pursued, he would have directed more attention to securing elimination of the poison. However, on this point it must be admitted that the time during which elimination can be effected is rather short. The chemists tell us that if, in a fatal case of arsenical poisoning, the patient lives a week after the poison has been swallowed, its detection may be impossible, so rapidly is it eliminated.

In reply to Dr. Bartholow, Dr. Mitchell said the time for attempts at elimination had passed, as two months had elapsed between the poisoning and the patient's admission to the hospital.

DR. S. W. GROSS asked whether any observations had been made with regard to the genital functions in the case reported.

DR. J. T. ESKRIDGE said that no reference had been made to changes in the blood in acute arsenical poisoning. Brodie, quoted in Stillé's work on *Materia Medica and Therapeutics*, observed a fluid condition of the blood in animals poisoned by arsenic. He called attention to the fact, because it was another proof of the profound devitalizing influences of the drug when taken in toxic doses.

DR. MILLS, in reply to the questions which had been asked, stated that there was impairment of the genital functions, but that sexual desire and evidences of sexual power were present. So far as he knew, the urine had not been examined in the early stages of the case. Efforts were made by Dr. Corson, under whose care the patient came, to eliminate the poison by cathartics. When he saw the patient first, the time had passed to derive much benefit from this plan of treatment. Iodide of potassium was administered.

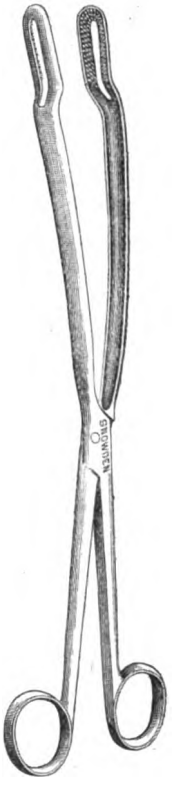
NEW INVENTIONS.

NEW ABORTION AND PLACENTA FORCEPS.

BY A. C. W. BEECHER, M.D.,
OF PHILADELPHIA.

HAVING on several occasions had the necessity of using Bond's placenta forceps, and finding them to almost utterly fail my purpose, I devised in August, 1878, the abortion and placenta forceps shown in the cut.

The instrument is made of the same length and curve as the Bond instrument, but the blades instead of being in juxtaposition in their entire length, as in the Bond forceps, are only so for the distance of an inch and a half from the extremity. Then, there are two angles in each blade, which throw the after-portions of the blades about half an inch apart. The blades are of the same width (½ inch) from their extremity to near the joint. The blades are concave transversely on their inner surface and convex transversely on their outer surface. There is a fenestrum in each blade, extending from near the extremity of the blade to beyond the shoulder formed by the angles.



The advantage claimed for this instrument is, that it is adapted to the removal of the fœtus in abortions, and the placenta, taking hold of larger portions at a time without, in the least, imperilling the mother's parts. Besides what may be caught in the jaws, if any portions of the mass extend beyond and between the blades behind the shoulders, they are also held without being crushed through, as would be the case in the Bond instrument with its closely approximated blades, and greater purchase is given upon the mass.

The fenestrum allows a protrusion through it and prevents the mere crushing through the placenta without the ability to remove a portion of the mass other than in shreds. The inside of the jaws is roughened to assist in the grasp of the placenta.

The instrument is also useful in assisting in removing a placenta at full term, either when adherent or when it has been retained and the cord torn off.

The width and convexity of the blades enable the forceps to be used somewhat as a dilator of the uterus, should such be required where an abortion is inevitable, without the risk of bruising the parts if at all carefully used.

This instrument is manufactured by Wm. Snowden, Surgical Instrument Maker, Philadelphia.

CORRESPONDENCE.

COMPLETE OUTWARD DISLOCATION OF THE RADIUS AND ULNA AT THE ELBOW.

To the Editor of THE MEDICAL NEWS.

SIR: The report of Dr. John W. Seiber's case of outward dislocation of the radius and ulna, in THE

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MEDICAL NEWS of August 19, 1882, caused me to refer to my case-book, wherein I find the following case recorded.

On the sixth day of March, 1876, a boy, about thirteen years of age, well developed, was sitting on a wagon driving a pair of mules along the side of a steep hill; the mules became frightened, ran away, and upset the wagon, landing him on the stony ground. The position of his arm while falling is unknown.

About four hours after the accident I saw the boy and found the left forearm at nearly a right angle with the arm, and a very broad elbow-joint. Examining more closely it was ascertained that the olecranon was not between the condyles, the inner condyle of the humerus very prominent, and by slightly moving the forearm motion was produced on the outer side of the joint.

In reducing the dislocation, an assistant steadied the arm, while I grasped the forearm near the elbow-joint with both hands and made traction, keeping the forearm at a right angle with the arm. During the time I made traction I placed the fingers of my right hand on the inner side of the humerus near the inner condyle, and pressed the ulna and radius inward, when a soft snap was produced, and the patient felt relieved. I could now flex the forearm nearly as much as the opposite healthy arm, but I could not extend it near as much. The joint was still very broad and the inner condyle very prominent. It now occurred to me that the sigmoid cavity of the ulna slipped upon the radial head of the humerus; I therefore again made traction and applied pressure as above stated, when another soft snap was produced like the first, but greater; both of them were audible to the bystanders. I could now extend, flex, supinate, and pronate the left forearm like its fellow on the opposite side, the olecranon process of the ulna and the head of the radius being in their proper position.

The arm was placed in an ordinary sling made out of a handkerchief. In a few weeks the patient could make full use of his arm, and about one year after the accident I saw the patient with full use of the arm.

I think the sigmoid cavity of the ulna rested on or above the outer condyle of the humerus. The first soft snap was undoubtedly produced as above explained, and the second snap by the sigmoid cavity of the ulna slipping into the trochlear surface of the humerus.

I am sorry that I cannot report the case more in detail, as I ought to have done at the time of the accident, but I did not search the literature of the subject and therefore did not know the rarity of such cases.

Very truly yours,

WESLEY C. STICK, M.D.

GLENVILLE, YORK CO., PA.

DEATH FROM CHLOROFORM.

To the Editor of THE MEDICAL NEWS.

SIR: The well known views of "THE NEWS" in regard to the comparative merits of ether and chloroform, left no room for surprise at the generally unfavorable editorial notice you were pleased to give my case of "Death from Chloroform," published in your journal of February 17th. There are, however, two points in regard to which justice to myself demands that I should make reply. First, That two ounces of whiskey administered at an interval of twenty minutes should be considered *large doses* of alcohol, and sufficient to depress the heart of an old toper, is a statement as surprising to me as it will be to thousands of practitioners who constantly use the drug with a view to producing the opposite effect. Second, Your strictures on the open towel cone are based on the assumption that it is held down over the patient's nose after the drug has been poured in, and they are perfectly justifiable from that point of view. The fact is, however, that it is with us always held at some distance from the face and waved back and forth, thus ensuring a diluted atmosphere. It is a suggestive fact also, that in the only other death from chloroform which has ever occurred in the University Hospital, where the drug has been used since its introduction into practice, and which took place only a few weeks prior to my unfortunate case, no stimulant was given previous to the inhalation, and the drug was administered by means of an apparatus (Junker's) whose chief merit is that it dilutes the atmosphere thoroughly before the patient inhales it.

I may be allowed to add, that to my ear, the suggested regulation by law of the anæsthetic agent to be used by surgeons smacks more of the fourteenth than of the nineteenth century.

Very Respectfully,

J. EDWIN MICHAEL, M.D.

245 MADISON AVENUE, BALTIMORE,
February 25, 1883.

CLIMATE IN THE TREATMENT OF ALBUMINURIA.

To the Editor of THE MEDICAL NEWS.

SIR: Since reading the admirable editorial on "The Hygienic Treatment of Albuminuria," which appeared in THE MEDICAL NEWS of February 10, 1883, I have felt a keen desire to know something further of your views in relation to the curative effects of climate in this disease. I would like to know especially whether "a Southern dry climate" is best adapted to all forms of chronic Bright's disease; whether in some forms the warm, *moist* climates of Florida or Madeira might not be more beneficial. Finally, in the absence of reliable, published statistics on the subject, whether you can tell me what special, exact locality, in our own country, either in the Southern Atlantic, Gulf States, or Southern California, will furnish the equable, warm and dry climate so much to be desired. By answering these queries, you will no doubt afford much satisfaction to many of your readers and oblige,

Yours Respectfully,

S. Q. LAPIUS, M. D.

NEWS ITEMS.

WATERBURY, CONNECTICUT.

(*From our Special Correspondent.*)

WINTER CHOLERA.—Many cases of the "winter cholera" have occurred here. Fully two hundred and fifty cases were reported as occurring in one week. Cases are continually appearing, but not so many now as there were at first. At the time of its first appearance it was extremely cold, but since then we have had all kinds of weather, which, however, does not seem to make any difference. At first it seemed plausible to lay it all to the snow water in our city reservoirs, but on second thought it was hard to believe that snow water had anything to do with it, inasmuch as there were nearly two feet of ice on the surface of the reservoirs. Cases are reported where tea has been used exclusively, all the water that was used having been boiled. No cases have been reported as occurring in children; all have been adults, both sexes alike affected. Symptoms resemble those of ordinary "summer complaint," and are readily controlled by anodynes. No serious cases have been reported, in fact, the city is freer from sickness, other than this, than it has been in several years. We are inclined here to lay it to

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atmospheric changes, in absence of any other assignable cause.

CHICAGO.

(From our Special Correspondent.)

RUSH MEDICAL COLLEGE held its fortieth annual commencement, in Central Music Hall, on the 20th of February. There were 179 candidates graduated as *Doctor of Medicine*. The faculty appeared for the first time in the scholars' robes of the University of London.

Prof. Moses Gunn gave the doctorate address, which was devoted to a discussion of medical ethics.

In the evening of the same day the faculty entertained the Alumni of the College at a banquet at the Grand Pacific Hotel.

LONDON.

(From our Special Correspondent.)

THE MEETING OF THE CLINICAL SOCIETY OF LONDON of February 9, under the presidency of Dr. Andrew Clark, was an unusually good one. The two papers read were on surgical cases, and excited a good discussion, and then at the end of the meeting two handy ways of testing urine for albumen were demonstrated.

SUBPERIOSTEAL AMPUTATION AT THE HIP-JOINT.—MR. SHUTER read a paper on this subject, illustrated by cases. On October 16, 1881, he held a consultation with Dr. Samuel West and Mr. Rose, on a patient aged 18, in whom he diagnosed acute necrosis without suppuration in the lower end of the left femur. This had led to septicæmia and secondary inflammation of the left hip-joint. Although my diagnosis was not supported, we were agreed that nothing but amputation at the hip-joint would save the boy's life. The next day the following operation was performed. A circular amputation through the junction of the middle and upper thirds was done, followed by a longitudinal incision on the outer side of the femur down to the bone, the periosteum stripped off and left in the flaps and the whole of the bone enucleated. The patient made a good and rapid recovery. A little more than two months after the operation he had a movable stump, and within six months of the operation he was wearing an artificial limb, on which he could get about very satisfactorily, and continued to do so until a few weeks ago, when I made him discontinue the use of it, in order to get a sinus to heal.

In 1859, Prof. Ollier, of Lyons, after performing many experiments on the lower animals, devised subperiosteal operations on the human subject with the view of getting bony supports to flaps cut for disarticulations. Among his suggestions was an operation similar to the one I performed on the hip-joint.

His case, however, was the first successful subperiosteal amputation at the hip-joint, which had been attended with the formation of bone in the stump, and in which the patient had been able to wear an artificial limb satisfactorily.

MR. BRYANT said the stump obtained by Mr. Shuter was the very best he had ever seen after amputation at the hip-joint; he was, however, of opinion that there had been no reproduction of bone in it, and that the good result was due to the firm attachment of the muscles to the periosteum. The operation would not be possible in all cases, but was evidently a good one where practicable. It appeared to him to be very closely allied to that just described by Mr. Furneaux Jordan.

MR. CROFT said that such a case showed the possibility of complete subperiosted *excision* of the hip, which had been denied by some authorities. He asked Mr. Shuter how he succeeded in cleaning the periosteum from the great trochanter.

MR. BARKER referred to a case in which, after flap-amputation through the thigh, he removed the upper end of the femur, which he found to be diseased, subperiosteally. The stump was a very excellent one, and had a rigid axis of new bone in the centre.

MR. CRIPPS agreed with Mr. Bryant, that there was no reproduction of bone in the stump. He thought that the prolongation of the operation entailed by this method, and also by F. Jordan's, were distinct disadvantages in an operation where rapidity was of importance, although the use of Davey's lever had reduced the danger of hemorrhage.

MR. PICK said that this was the only instance in which he had known a patient after this amputation able to use an artificial limb. The man walked into the room, and walked well on the artificial limb, but evidently moved it very largely, if not entirely, by swinging the pelvis.

MR. R. DAVEY related the case of perforation of the rectum from the use of his lever, which has already been reported in THE MEDICAL NEWS. He had records of the use of this lever forty times, twenty on each side, and in the cases of amputation the recoveries had been sixty-five per cent.

MR. MORRANT BAKER attributed the excellent result obtained by Mr. Shuter rather to the very long skin flaps he had made than to the stripping off of the periosteum.

MR. MORRIS referred to the readiness with which periosteum peeled off inflamed bone, and doubted whether this method added to the difficulty of the operation.

MR. SHUTER said that since his own case he had assisted a friend in doing one like it; that case died after three months, and then a mass of newly formed bone was found in the stump. In his case he had not bared the great trochanter of periosteum.

DR. CLARK appointed a committee to examine the case, and report upon (1) the structure of the stump—whether it really contained bone; (2) the mobility of the stump—the power of moving the artificial limb from the hip-joint; (3) the relative value of this and other methods of amputation at the hip-joint.

A SUCCESSFUL CASE OF NEPHRO-LITHOTOMY was communicated by MR. BENNETT MAY, of Birmingham. The patient and calculus were shown.

This case closely resembled that of Mr. Henry Morris, which was the first of the kind, and was communicated to the Society in November, 1880.

It showed an advance in point of size and weight of stone removed, this being three inches long and an ounce in weight.

The patient, a coal miner, thirty-four years of age, had his first symptoms of the disease when sixteen, in the form of severe and characteristic pain in the left loin, which after recurring several times during the next few years, completely left him till twelve months ago. During the interval, blood constantly appeared in the urine after exertion, and this, together with a permanent soapy sediment, leaves no doubt that the stone was present in the kidney all the time, and slowly growing there.

In November, 1881, pain returned with great severity after a hard day's work, and since then he could only live in comfort by avoiding over-exertion. A fast walk, rough work, or drive in a conveyance, brought on an attack of renal colic, which, beginning with rigor and sickness, was attended with severe pain in left loin, radiating down course of ureter in testis and thigh, and after lasting six or seven hours, was followed by copious hæmaturia and frequent micturi-

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tion for the next day or two. There was permanent turbidity of the urine from pus and phosphates, but the amount was subject to frequent aggravation.

Operation was done October 20, 1882. The incision differing from the ordinary colotomy one, in being higher up so as to skirt the last ribs as well as more internal.

Manipulation failed to make out a stone, but acupuncture detected it at once. The kidney substance was incised in a vertical direction until the wound appeared large enough to permit the extraction of the stone, which was accomplished by a scooping action of the forefingers and gentle traction on its smaller end. Bleeding of a serious character was profuse, but controlled by pressure. The parenchyma of the kidney appeared healthy; there was no appearance of pus or a thickened sac, and the cavity after removal was felt to be free from fragments. For the first twenty-four hours there was intense pain and some shock, and the contents of bladder, drawn off by catheter, were nearly half blood. On the following day urine began to flow through lumbar wound, and its becoming strongly ammoniacal caused the abandonment of the Listerian dressing which was originally used. For the first week alone one-third of the entire secretion must have come in this way, but it ceased entirely on the twenty-first day. The wound, which had been well drained from the outset, healed rapidly, and was quite sound at the end of the fifth week, never showing any tendency to the formation of a urinary fistula. At the beginning of the second week there was a slight attack of pleurisy with effusion on the same side.

The urine has slowly returned to a nearly normal standard; blood-staining disappeared after four or five days, but it remained very turbid with pus, phosphates and débris, and strongly ammoniacal for some time after operation. Five weeks afterwards it was neutral when in a fresh state, and in another fortnight the turbidity was nearly gone. Ten weeks after operation it was quite acid and very faintly opalescent. It has varied a good deal since then. Up to the present time the latest report (January 31st) is that it is still opalescent and turbid, with a small quantity of pus and phosphates.

Jan. 31.—He has tested his recovery by active exercise and numerous rides by rail. He feels perfectly restored to health and free from pain, and fit for active work, but has not yet ventured into the coal-pit.

Remarks.—Diagnosis was not very difficult to establish, the symptoms being sufficiently distinct from those of stone in the bladder. The only embarrassment resulting from his voiding a stone two days prior to operation, but the patient himself experienced no relief in consequence.

Operation.—It was found convenient to divide the edges of both erector and quadratus muscles. The kidney fell forwards, and by its recession, when touched, increased the depth of the wound to something considerable, and it was perhaps owing to this cause that the stone could not be palpated. The fingers, retained in the wound whilst being made and during extraction of stone, acted as a plug and arrested bleeding, which would otherwise have been very profuse. The principal feature of interest is the question of completeness of ultimate recovery and of restoration of the kidney as a healthy working organ, after the infliction of such severe injury, by the presence of so large a stone and by the operation. From the state of the urine for a long time, there must have been some degree of pyelitis, but there was no visible destructive change at the time of operation, and to that fact, which has been pointed out in the discussions of this Society, his recovery is no doubt due. Had the condition been otherwise, excision of the kidney would have been indicated. He is quite well now, but the further history of his kidney and the state of its pelvis will be an object of interest. Benzoate of ammonium had been given in large quantities, with the object of neutralizing the alkalinity of the urine, and thus lessening the risk of phosphatic incrustation.

The stone appeared to consist largely of a crystalline phospate of lime, but it probably contained one or more nuclei of oxalate.

MR. HOWSE had recently performed the operation, and removed a small oxalate stone weighing twenty-six grains. He could only detect this stone when he pressed his finger on the anterior surface of the kidney, and he urged that in all exploratory operations the kidney should be thus examined.

MR. CLEMENT LUCAS said that it was necessary to distinguish between cases of stone in practically healthy kidneys, and stone in disintegrated kidneys. The latter cases were best treated by nephrectomy.

MR. MORRIS thought the exploration of the kidney from the front added to the danger of the operation, and should not be undertaken till other means had failed.

MR. BENNET MAY said that it would have been hardly possible in his case to explore the front of the kidney, owing to the depth of the viscus. But he found that pressure upon the abdomen from the front did not fix the organ, a plan which Mr. Morris had advocated.

A HANDY WAY OF TESTING URINE.—DR. PARRY showed some small pellets made of sodic ferrocyanide and citric acid, for testing urine. For use, one was taken and crushed in a fold of clean paper, and the powder dropped into a test-tube. Urine to the height of an inch was then poured in and gently shaken, when at once a white precipitate is obtained if albumen is present. Neither the reaction of the urine, nor the presence of phosphates in excess interferes with the test. Like nitric acid, these pellets cause a precipitate of any oleo-resinous matter present in the urine.

DR. OLIVER showed his urinary test-papers. They are small slips of paper which have been soaked in solutions of one or other of the following reagents, and allowed to dry. The reagents are, potassio-mercuric iodide, potassium ferrocyanide, picric acid, potassio-mercuric, iodocyanide, and sodium tungstate. Similar papers saturated with citric acid are supplied with them. For use, the urine to be examined is first acidulated by one of the citric acid papers, and then one of the others is dropped in, and albumen, if present, at once appears as a white opalescent cloud, or as a flocculent precipitate about the paper. Both methods were evidently very simple and handy.

NORTH-EASTERN OHIO MEDICAL ASSOCIATION.—At the annual meeting of this Society held at Akron, on February 6th, the following officers were elected for the ensuing year:

President.—Dr. J. W. Underwood, of Akron.

First Vice-President.—Dr. R. A. Vance, of Cleveland.

Second Vice-President.—Dr. B. P. Longhead, of Vonidham.

Recording Secretary.—Dr. L. S. Ebright, of Akron.

Corresponding Secretary.—Dr. A. K. Fouser, of Akron.

Treasurer.—Dr. E. W. Howard, of Akron.

SMALLPOX AT BERLIN, WIS.—The disease appeared about the middle of January, and since then, thirty-three cases have occurred. The contagion spread to the schools through the attendance of the children of a Pole, who is reputed to have dug up infected clothes after they had been disposed of by burial, and carried

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them to his house. One of his children took the disease and died without medical attendance, the others continuing to go to school as usual. The health authorities are using every means to prevent its further spread, but its prevalence among citizens of Polish extraction, who are generally averse to vaccination, operates greatly against their efforts to suppress the contagion.

PORRO'S OPERATION.—PROF. NOVI, on December 2, 1882, performed Porro's operation in the Maternity Hospital, in Naples: both mother and child were saved.—*Gazzetta Med. di Torino*, February 5, 1883.

QUARANTINE AGAINST BALTIMORE, MD.—On January 31, the Colonial Government of Jamaica, gave public notice that the Governor, with the advice of the Privy Council, had declared the port of Baltimore, Md., to be an infected port within the meaning of the quarantine law of 1869.

THE DEATH OF A WELL-KNOWN DWARF.—MRS. BURNELL, a remarkable dwarf, who has been on exhibition in nearly all the leading museums in the United States, died in New York last Saturday, in the twenty-seventh year of her age. She was born on October 18, 1856, in Richmond, Vt. Her father was a dwarf, but her mother was a woman of ordinary size. In January, 1880, she was married. In September, Dr. Elliott Richardson, of the University of Pennsylvania, successfully performed the Porro-Müller Cæsarean operation upon her, and reported the case in the *American Journal of the Medical Sciences* for January, 1881. Her child, through careful nursing, developed into a strong boy, and he has been her constant attendant at the museum at which she has been exhibiting. He is now two and a half years of age, and is nearly as large as his mother, who at the time of her death was thirty-nine inches in height, and weighed forty pounds.

Mrs. Burnell's death resulted from a complication of diseases—mainly Bright's disease.

THE BROWNSVILLE QUARANTINE.—HON. THOMAS CARSON, the Mayor of Brownsville, Texas, has written a letter to the Mayor of Pensacola, in reply to some queries of the latter officer as to the workings of the *cordon sanitaire* established around Brownsville last fall, from which it appears that he is by no means favorably impressed with the workings of the new system.

He objects to "the arbitrary assumption of control of quarantine matters by Dr. Murray [of the Marine-Hospital Service], and his attempt to override the local health authorities, the inconvenience of the useless *cordon*, and the injury caused by that institution when, as our election-day approached, it drifted into a mere political machine, and was used for the purpose of facilitating the election interests of candidates supported by the Custom House of this district. Two days after the election it was disbanded. On election-day sixteen of its members were interested as candidates or occupied as supervisors of election and deputy marshals, and the remainder as runners or supporters."

He claims that the nurses brought by Dr. Murray from Galveston "were chiefly a lot of drunken rowdies, picked up apparently at haphazard, and their treatment of the sick was such that the people became alarmed, and would no longer permit their sick to be sent to the hospital."

"From small beginnings, which were overlooked because of the attention of the officials being engrossed in caring for the sick and destitute, Dr. Murray gradually assumed supreme and exclusive control in quarantine matters. . . . . No provision was made by him for keeping persons in quarantine or isolation; he simply declared non-intercourse, and when the local authorities sought to mend the situation, he scouted their authority, and threatened to bring United States troops to sustain his pretensions. Driven from this position, he practically retired from the town, but continued to exercise despotic authority on the line of his *cordon*."

"There were no refuges within the lines of *cordon*. Two points were designated about thirty miles apart, where those wishing to pass out were ordered to go and remain for ten days. At each of these two points a house was provided, but no provisions or anything but mere shelter. So far as I can learn, about six persons availed themselves of these to get through the *cordon* during the entire period of its existence."

"The line of the *cordon* was about seventy miles long, and there were twenty-eight guards on it. Most of them knew nothing of the topography of the country." "The guards were named by the deputy collector of customs, the leader of the 'Ochiltree movement,' and they supported Ochiltree to a man. . . . . Republican canvassers could pass the *cordon* guards with little or no detention. Democratic ones could not."

ENDORSEMENT OF THE NATIONAL BOARD OF HEALTH BY THE NEW YORK COUNTY MEDICAL SOCIETY.—The Medical Society of the County of New York appointed a committee, with power, to prepare and forward resolutions concerning the National Board of Health, its work, its continuation, and the annual appropriation for its support. The committee submitted the following report, which was adopted, and ordered sent to the Secretary of each County Medical Society in the State, with the request that the several Societies take similar action without delay:

Whereas, The several Acts of Congress constituting and organizing a National Board of Health, with power to investigate the sources of disease among the people; to prevent the introduction of contagious and infectious diseases into the United States from foreign ports, and their spread from one State to another; to coöperate and aid State and municipal boards of health in the control and suppression of epidemic diseases; and to publish a weekly bulletin of the public health of the cities of the United States, and of the foreign ports of the world which have commercial relations with this country, were regarded by the medical profession as admirably adapted to secure the aid of the general government in the prevention of the importation and spread of those foreign pestilences which have so often devastated large portions of the country in spite of the efforts of local boards of health; and

Whereas, The National Board of Health has discharged the important trusts committed to its care with such fidelity and efficiency as to have won the commendations of the financial officer of the government, and the favor and support of sanitary authorities in this country and Europe; and

Whereas, This Society deems it of the greatest importance that the General Government maintain the National Board of Health in all its integrity and efficiency, as the great central power of the government, ready to coöperate and aid State and municipal boards of health in the prevention of the introduction of contagious and infectious diseases into this country, and their spread from one State into another, and to perform such other duties as the several Acts of Congress impose; therefore

Resolved, That this Society earnestly requests the members of Congress from this State of New York, to use their effort to secure the repeal of the tenth section of the law, of June 2, 1879, entitled an Act to prevent the introduction of contagious and infectious diseases

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into the United States, whereby the act is made to expire on the 2d of June, 1883.

Resolved, That this Society also urge the members of Congress from the State of New York, to use their efforts to have adequate appropriations made by Congress for the continuance of its work of investigating the causes of disease, of coöperating with State and local boards of health, of carrying out the immigration inspection service, and of publishing the bulletin.

GUARDING AGAINST THE SPREAD OF EPIDEMICS.—The Swiss Confederation has passed a law entitled "Swiss Federal law relating to the measures to be taken against epidemic diseases threatening general danger," the general principles of which are as follows: 1. The law applies for the present only to smallpox, Asiatic cholera, spotted typhus, and pest. 2. The law is to be executed by the Cantons (corresponding to our States), and the Federal Council is to supervise the methods employed, for which purpose the Cantonal laws and regulations on this subject are to be submitted for approval by the Council. 3. Whenever a physician observes a case of one of the diseases mentioned above he must at once inform the local authority and also the sanitary authority. In those places where any one may practice medicine this obligation falls upon all persons caring for cases of these diseases, and in case a person is not under medical treatment the head of the family or the householder must report the facts as above.

4. Every person affected with one of these diseases must be isolated as soon, and as completely, as possible. The same is to be done with the persons having charge of such a case. If he desires it, the patient may be authorized to remain in his own house on condition that the directions concerning isolation can be properly carried out. This isolation must continue until the case is certified to by a physician, or until the patient, living or dead, has been carried elsewhere, and the prescribed disinfection has been carried out. Persons diseased, but who, without being to blame, must be submitted to isolation and are thus deprived of their wages, have the right of claiming an indemnity. The transportation of persons affected with these diseases shall, in no case, be made by public vehicles. The purchase of soiled or stale linen, or of second-hand clothing, or rags, is forbidden in every locality where these diseases prevail.

5. Every child born in Switzerland shall be vaccinated in the first, or at the latest, the second year of its age. This vaccination shall only be delayed for special reasons certified to by a physician. Children who have not been vaccinated, born abroad and brought into Switzerland, shall be vaccinated as soon as possible, and the fact of vaccination shall be certified to by a legally authorized physician. No child shall without this certificate be admitted to any school, public or private.

6. If scarlet fever, diphtheria, typhoid, typhus fever, dysentery, or puerperal fever prevail in an epidemic form, the Cantonal authorities may apply the above-mentioned regulations concerning preventive measures —an obligation to report cases, isolation, and disinfection—to these diseases also.

7. The Confederation should bear one-third of the expenses caused by the erection of hospitals as places for isolation, or for the costs demanded for the establishment of buildings to receive persons not affected, but for observation.

8. The provisions of this law are to be enforced under penalty of a fine of not more than a thousand francs in grave cases, and imprisonment for six months may be added to this. In case of a second default the maximum penalty may be doubled.—*Sanitary Engineer*, Nov. 30, 1882.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending February 17th, indicate that cholera morbus and typho-malarial fever have increased, and that scarlet fever, consumption, intermittent fever, measles, and tonsillitis have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending February 17th, and since, at 14 places, scarlet fever at 9 places, and measles at 9 places.

A correspondent reports what he thought was a case of arsenical poisoning. Face, eyes, hands, and feet swollen, skin pale and cool, great fulness of the head, uneasiness of the stomach, gaseous eructations, and loss of appetite, soon regained. Analysis of substances supposed to contain the poison demonstrated absence of any, and it was suggested that acute Bright's disease caused the symptoms. Other cases, presenting similar symptoms have been reported, some of them supposed to be epidemic influenza. Perhaps if physicians make careful examination of the excretion from the kidney in such cases, it may lead to useful knowledge respecting the disease now prevalent. One physician reports that such examination, made because of unusual prevalence of partial suppression, showed absence of albumen.

OBITUARY.—On February 1st, in the 74th year of his age, PROF. VON SIGMUND. Prof. Sigmund was born in Schässburg, in 1810, received his medical education in Pesth and Vienna, and was appointed Extraordinary Professor of Syphilis in 1845, but did not obtain the full professorship until 1869. His name is well known as one of the most distinguished German syphilographers.

—— Died, in the 56th year of his age, PROF. CARL VON HECKER. Prof. von Hecker was born in Berlin on May 8, 1827, received his medical education in Berlin and Heidelberg: after serving in the army during the Schleswig-Holstein war, he removed to Vienna in 1850, where he studied gynecology and obstetrics, and on his return to Berlin was made assistant to Von Busch, at the obstetrical clinic. In 1858 he was called to Marburg to the chair of obstetrics, as successor to Hüter, though he was soon afterwards called to Munich, to the professorship of obstetrics, a position which he occupied up to his death. His communications to the literature of gynecology and midwifery are numerous and valuable.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 19 TO FEBRUARY 26, 1883.

HEIZMAN, CHARLES L., *Captain and Assistant Surgeon.*—To be relieved from duty in the Department of the Columbia.—*S. O. 12, Department of Columbia, February* 8, 1883.

TESSON, L. S., *Captain and Assistant Surgeon.*—To be relieved from duty at Fort Clark, Texas, and assigned to duty at Fort Ringgold, Texas, as Post Surgeon.—*Par. 5, S. O. 20, Department of Texas, February* 21, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

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ORIGINAL LECTURES.

THE DIFFERENTIAL DIAGNOSIS OF DEMENTIA PARALYTICA, OR GENERAL PARALYSIS OF THE INSANE.

A Clinical Lecture, delivered at the Hospital of the University of Pennsylvania, December 1, 1882,

BY H. C. WOOD, M.D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, AND CLINICAL PROFESSOR OF NERVOUS DISEASES IN THE UNIVERSITY OF PENNSYLVANIA.

GENTLEMEN: I shall bring before you to-day an interesting case. The history is that until June last he was perfectly well, and as far as we can make out —which is a very important proviso—never suffered from specific disease. At that time he began to have occasional headaches; these gradually became worse, but finally they disappeared entirely, and he began to worry about his business, and to be in some respects a changed man, and gradually developed the symptoms from which he is at present suffering, and which I shall detail later in the lecture.

Let me begin by stating that this is a case in which the great interest centres on the diagnosis; and that the point which I shall discuss at some length is, whether this man is suffering from the disease known as general paralysis of the insane—dementia paralytica, or, as it is sometimes called, paresis—or from some other affection.

As many of you perhaps know, there are in fully developed cases of dementia paralytica three sets of symptoms which are especially marked, and which when present are certainly very characteristic. These symptoms are, first, those referable to the mental condition; second, those referable to the moral condition; and, third, those referable to the motor condition, including under this head those symptoms connected with speech, and which are partially due to motor defects, and partially the result of mental depreciation.

If you examine a typical case of this general paralysis of the insane, the first thing that will attract your attention is the peculiar delirium of grandeur, as it is called. The man imagines that he is some great being; sometimes he believes that he is the czar, or the emperor of France, or the president of the republic; and sometimes the Almighty himself. This delirium is not necessarily connected with the idea that the person is somebody else than he is, but may be shown in a belief in the greatness of his own personality. He believes that he is very rich, owns millions; or he may think that he has great power; he will hold out his right arm and tell you that by the power of that mighty arm he is able to overcome multitudes of armies. In some way, in those cases where the disease is typical, there is this delirium of grandeur. It is, however, a mistake to say that the delirium of grandeur is proof that the patient has dementia paralytica, for undoubtedly it may be associated with other diseases, as with a form of ordinary insanity; and I am sure that I have seen it in syphilis of the brain; it is also said occasionally to be seen imperfectly in chronic alcoholism. Then, again, there are cases of general paralysis in which this delirium is not present; there is a class of cases in which the symptoms are those of depression, of hypochondriasis, rather than those of delirium of grandeur. The patient is worried, is apt to grow apathetic, and to be depressed continually.

The second set of symptoms connected with dementia paralytica are those referable to the emotions. These are of great importance, because they may manifest themselves before any other symptoms. The patient's temper changes; the least opposition throws him into a violent rage; he is excessively irritable, and sometimes exhibits an erotic tendency. Emotional excitability, remember, is not an evidence of power, but of weakness. A man has the power of self-control just in proportion as his upper cerebrum is in a condition of integrity, and is habitually able to dominate and control the lower nervous apparatus. Therefore, when we find a man changing his nature, becoming irritable and easily excited, we know that he is in a condition in which there is depression of the upper nerve-centres. This depression or weakness may be simply from exhaustion, or it may be from commencing organic disease.

To complete this outline picture of the disease, it is necessary to say a few words in regard to the motor symptoms. These consist in a progressive weakness, associated with changes in the power of speech. It is frequently stated that patients with this disease first lose power in the legs, and then in the arms, but this is not true. This is simply because the weakness in the legs is first noticed. If the man is engaged in some employment requiring delicate movements of the fingers, he will first complain of loss of power in the hands, and later in the legs. In the early stages of the disorder there is not so much a loss of power as a loss of control, or of coördination; the man who can walk miles, or lift heavy weights, can not perform delicate movements with his fingers.

The changes which occur in speech are twofold: first, simple slowness of speech, due to mental depreciation; second, a peculiar form of expression known as scanning speech, which is very characteristic, and which is due more to loss of motor power than to mental depreciation. When a man in advanced general paresis is suffering from mental depreciation, you will find that he answers very slowly. You ask, "Where were you this morning?" He says, "I—was—down—town." This is because he does not think quickly, because he has lost the power of active intellectual movement, so to speak, and his words come slowly. Another man suffering from this same disease will, in answer to your question, say, "I walked down town to-day." His words may come fast enough, but he answers with a regular, rhythmical, up-and-down movement; separating his syllables, and having an enunciation in which certain sounds, especially the A sounds, are thrown out with great force and length, while certain other sounds, as the labials, are dropped. During the effort of speech in such a case you will notice a peculiar trembling, almost choreic, in the muscles about the mouth.

I shall ask this man a few questions, to see if there is any loss of the power of speech. As you hear, he answers slowly, prolongs his syllables, and has a little scanning speech. You also observe a tremulousness of the lips. He speaks slowly, because he thinks slowly. He states that he never stammered before, but has noticed lately that he does. Giving him a newspaper to read, he succeeds very well. This shows that the slowness of speech is due more to loss of

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mental power than to loss of power over the organs of speech. When he has the words before him, so that he does not have to think them, he speaks much more freely than when he has to think the words. This is then a case in which there are undoubtedly some symptoms of the disease of which I have given you some account. The question which I want especially to bring before you, relates to the diagnosis. The diagnosis of a fully formed case of general paresis is very simple and easy, but to diagnose the disease early, at the only time when you can possibly hope to do good by treatment, and at the time when you are especially pressed for an opinion as to the future, is sometimes extremely difficult and very uncertain. Where there is delirium of grandeur, with failure of mental power, especially loss of memory, with some failure of motor power, with disorder of the speech, of course the man who runs can make the diagnosis.

There are three affections which are liable to be confounded: general paralysis, cerebral syphilis, and chronic alcoholism. In addition to these you will sometimes, particularly in the early stages, be asked to decide whether or not there is anything at all the matter. This is especially true in cases in law. Let me cite an illustrative case. A man whom I believe had been a banker, and who was in good circumstances, came to a large city and took rooms at a hotel. Soon afterwards he brought home with him one day, three women of the town and wanted to take them to his room, but was prevented by the landlord. A few days later numerous wagons began to come to the hotel, bringing pianos which the man had bought. The landlord, suspecting that something was wrong, telegraphed to his people, and in a short time marked symptoms of the disease developed. Whenever a man suddenly changes in disposition, suddenly becomes extravagant, or exceedingly irritable, or very lewd, or any other emotional symptoms develop suddenly, without obvious cause, you should be on your guard, and remember that the patient may have commencing general paralysis.

In our present patient it is somewhat embarrassing to decide whether he has this or some other affection. The delirium of grandeur is usually stated to be characteristic. But, as I have already said, it is not characteristic. It may occur in certain forms of chronic mania, and I know that it may appear in syphilis of the brain. There is, however, very little difficulty in diagnosing between the delirium of grandeur occurring in mania and that occurring in general paralysis. In the delirium of mania, the man, if he asserts a thing, acts it. Thus he declares that he has a strong right arm, and, acting upon that belief, knocks you down; the patient with general paralysis, will hold out his soft, flabby arm, and tell you that it wields the power of the universe, but he does not attempt to use it. The latter patient probably believes what he says; but he does not believe it in the same way that the former does; his acts and his belief do not correlate.

The delirium of grandeur of syphilis exactly simulates the delirium of grandeur of ordinary general paresis. Last spring, we had in this house a man who presented very closely the symptoms of general paresis. As the case is of interest in this connection, I shall briefly relate his history. R. G., age about thirty, came into the hospital suffering from partial dementia with distinct delirium of grandeur. He had, at the same time, headache which was worse at night; he had a clear history of specific disease. The delirium of grandeur took the form of belief in the possession of great wealth. He said that his relatives were immensely rich, that his uncle was worth millions, and would pay all his bills; he would give a million to the hospital and a million to the doctors for getting him well and out of it. There was distinct failure of memory and loss of power of fixing the attention. There was, however, no affection of speech and the power of locomotion was good. He was put upon the use of iodide of potassium in large doses for a time, then ptyalized, and then again iodized. Under this treatment, the symptoms gradually ameliorated, and he left the hospital in about two months apparently perfectly well, with the mind clear, the memory restored; he seemed capable of performing, as well as ever, his habitual duties of life.

This was a case in which delirium of grandeur existed in a man with a specific history, and in which a cure was effected seemingly by specific remedies. The fact that a man has had syphilis, is no proof that the disease from which he may be suffering is a result of the specific disease; but when a patient has a specific history and his symptoms disappear under the use of specific remedies, the evidence is pretty clear that the affection has been specific.

When delirium of grandeur is the only symptom the diagnosis can only be made out by attention to the history and by watching the case; oftentimes, an opinion must for a time be withheld. My own experience leads me to say that you should look unfavorably on a case in which, in addition to the delirium, there is loss of the power of speech. I do not remember to have ever seen alteration of speech associated early with mental failure or delirium of grandeur, in a case which I knew to be specific. A year or two ago, there was such a case in the hospital in which there was reason to suspect syphilis, but as the man remained under observation a short time only, we were unable to satisfy ourselves on this point. When you have the mental symptoms associated with disorder of speech, you may look upon the case as probably of the more serious disorder.

In regard to chronic alcoholism. In this condition the delirium of grandeur is very rarely present, but frequently there is some failure of speech and slight loss of power. I have never seen a case offering any difficulty, but it is possible that a diagnosis could only be made by learning the history and by watching. If you have a case simulating general paralysis directly due to chronic alcoholism, and you take that man off of his alcohol for one, two, or three months, he will certainly improve.

In some cases, and perhaps in the present, the diagnosis lies not so much between general paralysis and alcoholism or syphilis, as between general paralysis and disease at the base of the brain, affecting the organs of speech. I refer to glosso-labial paralysis. This is nothing more nor less than a chronic poliomyelitis, affecting the upper portion of the spinal cord, which we call the medulla. Glosso-labial paralysis is, in other words, a chronic muscular atrophy, affecting the tongue, muscles of deglutition, and the lips; those parts whose centres are in the medulla. In this disease there is no mental deterioration, because the upper brain is not affected. We must therefore decide, in the present case, whether there is any mental failure. He denies loss of memory or mental power, and shows some wit in answering my questions, but his wife states that there is a decided failure of memory and also that his emotional nature is changed, in so far that he worries a great deal (this was especially marked in the beginning of the case), although he has not become irritable or cross. She denies any change in his sexual relations. As I question him, you notice that there is a tendency to echo my words. Every now and then he repeats a sentence after me. This is a very curious mental tendency which we all have to some extent. When the mental power is weakened from any cause, this proneness to echo words is markedly increased, because, as the upper nerve-centres are enfeebled,

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automatic action becomes less and less controlled. It is sometimes stated that this repeating is characteristic of the disease under consideration, but this is not so; it simply indicates that there is loss of mental power: that the upper centres are in a condition of exhaustion or depression from some cause, but it does not indicate any particular cause. There is, as you observe, a distinct loss of memory. He is unable to tell me what he read about a few minutes ago, without stopping to think; and there is a slowness of mental action which is almost characteristic.

There is a mental condition which sometimes exists in general paralysis, and which I think is present in this case. You will find in some cases of the disease that while there is no true delirium of grandeur, or even while the patient seems to be depressed, he is really very well contented. This man is in circumstances which would depress an ordinary man. He has always been industrious; has a wife and family dependent upon him; he is broken in business, and has had to quit work and come into a hospital; yet he appears not to be depressed, but very well satisfied with himself and his surroundings. His wife left him weeping, and unable to see how the family would get along. He was, if not triumphant in expectation or belief in his millions, placidly content.

I shall now test his sensation with the æsthesiometer. Loss of sensation is not always present in general paralysis of the insane, yet it has a certain value from a diagnostic point of view. If I find marked loss of sensibility, I shall add that to the heap of facts tending towards the diagnosis of general paralysis. Observe the tremulousness of the eyelids when he closes them. I can make out no distinct anæsthesia.

In advanced general paralysis the gait is distinct. This man can, however, walk pretty well. Frequently, the first thing noticed in reference to the gait is that the patient walks with difficulty where it is rough.

Q. Have you noticed that you cannot walk as well as you used to on cobble-stones?

Ans. Yes; but there is a reason for that.

Q. Well, what is the reason?

Ans. I have got corns.

This man tells us that he has had some increased difficulty, which he attributes to the presence of corns, but on close questioning I find that he has always had corns and that his difficulty of walking in rough places is recent.

Let me sum up the points that we have made out; from the statement of his wife and from our own observation, we learn that there is a distinct loss of memory, there is a marked slowing of mental action, the man thinks very slowly and talks slowly and uncertainly; there is no headache, we also find disturbances in the emotional sphere; the man, especially early in the attack, was disposed to worry a great deal, and now he does not worry as he ought to do if himself; in the motor sphere, we find that the speech is markedly affected, there is reason to believe that walking is affected, in so far as rough places are concerned. Taking these things into consideration, it seems probable to me that this man has either a specific brain trouble, or the first stage of general paralysis. I do not think that it is due to specific disease, because as I have already stated, in my experience, disorder of speech connected with failure of mental power is exceedingly rare in syphilis. In the hundreds of cases of cerebral syphilis which I have seen in this and other hospitals, I have never early in a case seen the speech affected when the upper brain was attacked. Syphilis attacks either the upper brain by itself or the lower brain by itself, rarely affecting both at the same time. In general palsy, all portions of the brain are affected.

The diagnosis, that this man has not syphilis, is confirmed by the result of a therapeutic trial. We have found that iodide of potassium, in ten grain doses, rapidly produces symptoms of iodism.

I shall devote the few remaining minutes of the hour to a brief consideration of the pathology of this disease. The pathology of general paralysis is a chronic inflammation of the whole material of the brain. As you know, the vessels of the brain run through what are called perivascular spaces. These are lymph spaces and are filled with a transparent fluid. This disease probably begins in these lymph channels, and perhaps at the same time in the surrounding neuroglia. Under the microscope it is found that a rapid formation of cells occurs in these channels and they soon become filled with lymphatic elements. At the same time nuclei appear in the cells of the neuroglia outside of the lymph spaces, and there is a rapid multiplication of cells; changes which are allied to those of sclerosis. This same series of changes takes place in certain forms of cerebral syphilis. I have very carefully studied these changes in syphilis with the microscope, but I can discover no difference between the changes in syphilis and those in general paralysis. The only pathological difference that is diagnostic is that in syphilis the disease is localized; it affects either the gray matter or the white matter alone; in general paralysis both are affected. In general syphilis involving the cortex of the brain there will be mental failure without headache (if there is headache, there is meningitis added to the cortical disease), without failure of motor power, without anything else except progressive mental failure; the man becomes apathetic, sometimes more or less excitable, but his mind, as it were, gradually oozes away. If a slice were made of such a brain, the gray matter would be found to be entirely sclerosed. The appearances in syphilis and general paralysis are similar, but the results of treatment are very different; the diagnosis is therefore of the greatest importance. Where in any case, you are in doubt, you should of course give the patient the benefit of the doubt and try the effect of specific remedies. The treatment of general paralysis is without avail.

ORIGINAL ARTICLES.

ACTION OF PULSATILLA IN THE TREATMENT OF GONORRHŒAL EPIDIDYMITIS.

BY F. R. STURGIS, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM AND OF VENEREAL DISEASES IN THE N. Y. POST-GRADUATE MEDICAL SCHOOL; ONE OF THE VISITING SURGEONS TO CHARITY HOSPITAL.

(*Read before the Materia Medica Society of New York City, December 28, 1882.*)

A FEW years since I published in the *Medical Brief* a short paper with the report of four cases on the action of *Pulsatilla nigricans* in the treatment of gonorrhœal epididymitis, where the drug seemed to me of benefit. Others of my colleagues had used the drug with varying success, but I believe the majority rather coincided with the opinion of Dr. E. L. Keyes, to wit, "It" (pulsatilla) "has failed in my hands, employed in both ways" (*i. e.*, "from one-tenth minim; often repeated, up to one drop three times a day") "either to check the pain or modify the course of the malady." Coming from the source it did, this statement led me to reflect that perhaps my desire to relieve pain had interfered with a calm judgment of facts. I therefore determined to extend my experience of pulsa-

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tilla in this class of cases, and the result of this experience is what I shall now present.

The preparation of the drug used in all my cases was the homœopathic tincture, the so-called mother tincture, and my object in so doing was to obtain a preparation of uniform strength. It is made in the proportion of one part of the fresh plant to six parts of alcohol. Although the species used by me was the P. nigricans, other varieties of the pulsatilla (the P. pratensis and the P. nutalliana) are, according to Hughes, of equal value, as they all contain the active principle, anemonin. Introduced to professional notice by Baron Stoerck for a variety of diseases—cataract, amaurosis, secondary syphilis, etc., it speedily fell into disrepute, or rather disuse, perhaps because the preparations used were of variable strength. I was led to employ the drug in the hope of finding it useful in allaying the exquisite pain attendant upon this variety of gonorrhœal complication, and certainly, in the result shown in the cases reported, I believe my expectation has been realized.

CASE I.—G. J., æt. 27, was admitted to the Charity Hospital November 17, 1880, with a gonorrhœa of somewhat over a week's duration. His previous venereal accidents were gonorrhœa, dating back seven years, without complications, and syphilis contracted six years before.

One week after the commencement of his present attack, the left testicle became swollen and exceedingly painful. This was shortly before his entrance into the hospital. Two leeches were applied on the 18th inst. to the external abdominal ring, and the testicle was wrapped up in a tobacco poultice. This treatment was continued for several days without benefit, the testicle still continuing swollen and painful. On December 1st he was ordered to get out of bed and take two minims tinct. pulsatillæ every hour. Three days later, December 4th, the record showed that there was very little pain, except at the globus major, and the testicle had diminished very much in size. The pulsatilla was continued until the 6th inst., when it was discontinued, as there was no further pain. The urethral discharge was treated by injections, and on December 29th he was discharged well, no pain having returned meanwhile in the testicle.

CASE II.—P. K., æt. 42, entered the hospital December 6, 1880, with a clap of twelve days' duration. His previous venereal history was two attacks of gonorrhœa, one dating back twelve years, the other two. The first attack was complicated with a suppurating bubo in the right groin, the second with two swelled testicles. Ever since this last attack he has had a gleet. On November 24, 1880, the right testicle began to swell, accompanied by a dragging sensation in the scrotum, which was relieved by an elevated position. Has had (and now has) a slight urethral discharge, but no acute clap.

On entrance into hospital, December 6, 1880, inspection showed a swollen and inflamed scrotum. The right testicle was enlarged, and tender upon handling, the pain extending up the cord. Usually the pain is of a dragging nature, except when the testicle is squeezed, when it becomes acute and produces nausea, extending up into the inguinal canal and into the abdomen. Nothing was done for him until the 10th, when, as the symptoms remained as acute as at first, two minims of tinctura pulsatillæ were administered every hour, and he was not allowed to remain in bed.

December 12.—Pain in testis is decidedly less.

14th.—Can bear quite rough handling. Epididymis still large and hard, but less so than on December 10th.

16th.—Pulsatilla stopped, as the pain has gone. To use injections for the urethral discharge.

21st.—Discharge disappeared. Reports some return of pain in the testis. As this organ shows no signs of inflammation and admits of free handling, nothing was done.

28th.—Pain has entirely gone.

Jan. 18, 1881.—No return of pain in testis, which has resumed its normal size. Slight induration left at globus minor. Discharged well.

CASE III.—D. S., aged 24, entered hospital December 10, 1880. No previous venereal accidents. On December 1, 1880, he first noticed an abundant muco-purulent discharge from the urethra, with dysuria. December 8, his left testicle swelled and was very painful. This pain extended to the small of the back. The discharge diminished as the pain came on.

Examination revealed the following condition of things. Slight urethritis. Left epididymis swollen and very painful on handling. Scrotum inflamed. Spermatic cord thickened and painful. Tobacco poultice applied to the testicle, which on the 12th inst. was changed to one of flaxseed.

Dec. 15.—On the 13th inst., as the condition of the testicle had not improved, he was told to use two minims of the tincture of pulsatilla every four hours. No local application was made, and patient was directed to keep out of bed. To-day the pain in the testicle much relieved.

20th.—Pulsatilla stopped on the 18th, as the pain had entirely ceased. The testis is as large as before, but painless. Discharged improved.

CASE IV.—T. D., aged 25, entered hospital January 18, 1881. No previous venereal accidents. On December 28, 1880, four days after coitus, his clap began. On January 5, 1881, his right testicle became very much swollen and painful. On January 14, the urethritis ceased.

Jan. 18.—No discharge from the urethra. The right testicle is swollen, red, and moderately painful on pressure. The swelling extends up the cord. Was directed to take pulsatilla tincture, one minim every hour, and to remain out of bed.

25th.—Pain was not relieved for four days after commencing medicine. Now all the symptoms recorded at entrance have disappeared. The epididymis is slightly enlarged, otherwise the testicle is normal. Discharged well.

CASE V.—N. M., entered the hospital January 18, 1881. Previous venereal accidents were gonorrhœa in 1873, and chancres in 1875. No syphilitic history. On December 31, 1880, three days after coitus, he discovered a muco-purulent discharge from the urethra without chordee or dysuria. On

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January 13, 1881, his left testicle became swollen and painful.

Jan. 18.—Examination showed the left epididymis swollen and extremely tender. Body of testis normal. Scrotum slightly inflamed; cord not implicated. Muco-purulent discharge still present, but without dysuria or chordee. To take tinctura pulsatillæ, one minim every hour, and to remain out of bed.

25th.—Twenty-four hours after treatment was commenced the pain in the testicle was relieved. To-day no pain is manifested in handling the testis. The inflammation of the scrotum has subsided, and the enlargement of the epididymis is materially less. Urethritis unchanged. Discharged at his request.

CASE VI.—H. S., æt. 26, entered the hospital February 28, 1881. Previous venereal history is three attacks of gonorrhœa without complications. Nothing else until present attack, which was first seen January 30, 1881, five days after coitus, in the shape of a slight urethral discharge, accompanied by ardor urinæ. The discharge was at no time very abundant. On February 24, 1881, patient felt pain in the testis and cord on the right side, and discovered that the organ was swollen. The pain and swelling have increased up to the present (28th). The scrotum became inflamed on the 26th instant. On the 24th the discharge diminished in quantity, and at the present is confined to two or three drops in the morning.

Feb. 28.—Examination shows the whole epididymis of the right testicle acutely inflamed, accompanied with effusion into the tunica vaginalis. It is very painful and swollen to three times its normal size. The scrotum is reddened and the temperature of the part is elevated. He was ordered to take tinctura pulsatillæ, one minim every hour, and to remain out of bed.

March 1.—Complains of increased pain in testicle. Ordered to bed: pulsatilla continued.

4th.—Pain still worse, and as it was evident that the pulsatilla was not doing good, its use was abandoned and the patient was put upon other treatment.

These cases include all the gonorrhœal affections of the testis treated by pulsatilla during the four months of November and December, 1880, and January and February, 1881, in the wards of the Third Venereal Division of Charity Hospital, and the histories are to me instructive. Here are six cases, all acute, in three of which one minim of the tincture is given every hour; in two cases two minims are given every hour, and in one two minims are administered every four hours. In one case relief is obtained in twenty-four hours; in two cases in two days; in one case in three days; in one case in four days, and in one case there is a total failure. In one case, No. 3, where two minims were given every four hours, relief was as speedy as in No. 2, where the same dose of the medicine was given every hour, and more speedy than in No. 1. In No. 6 there was no success, and I regret that, before changing the treatment, I did not try smaller doses of the medicine, which are said to be effective when larger doses fail. The length of treatment varied from four to seven days, an average of about six days, but relief began long before that time in all the cases which were benefited.

The date of the disease at which treatment was begun, varies from thirteen to twenty-nine days from the first appearance of the clap, and from the result it would not appear that the element of time exercised much influence upon the cure.

In the five cases in which the symptoms were relieved, no relapse took place, although during and after the treatment the patients were not allowed to remain in bed.

Two points are worthy of special mention in giving this drug for the relief of gonorrhœal epididymitis: One is that its action is confined to the relief of the pain, and seems to have no influence in reducing the size of the inflamed testicle; the second, is that the relief, if any is to be afforded, will take place within forty-eight hours after the administration of the drug. I certainly should not continue its use beyond three days if no benefit ensued within that time.

I offer this fragmentary contribution, with many apologies for its imperfections, with the less hesitancy, because I think in this drug we have another and a fairly good means of combating a painful and distressing affection.

16 WEST THIRTY-SECOND STREET, NEW YORK CITY.

A CASE OF HÆMOPHILIA: VARIOUS HEMORRHAGES CONTINUING FOR FIFTEEN DAYS.

BY E. F. TIEDEMANN, M.D.,
OF O'FALLON, ILL.

ON September 3d, at 8 A. M., I was called to see Eva T., a domestic, aged 18, on account of very profuse epistaxis. She told me that on the day previous she had noticed, by means of a mirror, blood trickling down her throat; she had also bled from the mouth, but the bleeding was not severe till 6 A. M. that morning, when it commenced very profusely from the anterior nares. She thought she had lost a wash-basin full of blood, and her blanched and feeble appearance confirmed her statement. Examining her mouth, I found slight oozing from five decaying teeth; the last molar and the second bicuspid on the right side of the lower jaw; the first molar on the left side; and the first and second molars of the left upper maxilla. There was no hemorrhage from the posterior nares. On the back of her left hand was a large ecchymosis, about two inches in diameter, and of a blue color; on her right forearm were two smaller spots, of a reddish hue. On her arms I found numerous spots of purpura hemorrhagica, especially around the elbows. She told me that there were many large and small spots on her lower extremities, and she was very certain she had received no injuries which might have caused the ecchymoses.

After the introduction of some pledgets of cotton soaked in a solution of iron perchloride into the anterior nares, the bleeding apparently ceased, and the oozing from the decayed teeth stopped of itself.

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I was told that the girl had always had frequently recurring hemorrhages from the nose; on one occasion, about two years ago, the bleeding was so severe that a physician was called in. Whenever she bled profusely from the nose, numerous blue and red spots appeared on her body. She had also suffered much from menorrhagia, her courses sometimes lasting two or three weeks. Still, it was not known that she had the hemorrhagic diathesis.

I was again called at 11.30. The hemorrhage had returned from the posterior nares and the decayed teeth. I injected both nasal cavities with a dilute solution of perchloride of iron, and touched the bleeding spots in the mouth with pure liquor ferri perchloridi, and administered gallic acid, ergot, and opium in full doses. Bleeding from the posterior nares stopped, but continued anteriorly; I now plugged the anterior nares with cotton moistened with the iron solution, but the blood continued to ooze through and by the side of the plugs like water. Finally it stopped when I used a powder of tannic acid, alum, and gum arabic on strips of lint, pushing them in very tightly. The blood looked thin, and was evidently lacking the factors of coagulation, clotting but very feebly.

Saw the girl again at 5 P. M.; the teeth mentioned and their gums were bleeding afresh.

At 8 P. M. she was again bleeding from the posterior nares, blood trickling down the pharynx continually. I now determined to plug the posterior nares, and called on Dr. H. T. Bechtold for aid. We plugged both posterior nares with pieces of sponge moistened with the iron solution. During the procedure hemorrhage was very severe, and vomiting of black blood occurred several times. We also plugged the anterior nares, but blood continued to ooze, and the plugging had to be repeated several times. The bleeding finally ceased when we used pieces of sponge and smeared their free sides with the powder mentioned, which produced sticky clots. The bleeding had changed from one nostril to the other, sometimes coming from both at once.

When the hemorrhage from the nose had ceased, bleeding from the right last molar of the lower jaw and the gum surrounding the second molar commenced, and continued steadily. Failing to check it, we called to our assistance Dr. Mace, a dental surgeon, who finally controlled it by means of a large pledget of cotton and iron, placed so as to exert pressure. It was now 12 o'clock at night. I remained at the patient's house.

4th.—During the night patient bled from anterior nares, necessitating renewed plugging; oozing from the posterior nares and the last molar set in at 3 A. M., and continued all day. I administered a brisk purgative of epsom salts, which was followed by large, black evacuations of a tarry consistency. Œdema of uvula and soft palate, due to the pressure and irritation of the plugs, occurred and obstructed respiration considerably. As the plugs did not prevent bleeding, I removed them at 6 P. M. Profuse hemorrhage followed. Gave 15 grains quinine in solution; it was vomited at once; administered 5 grains hypodermically, with no result. In consultation with Dr. Bechtold, we injected the nose with vinegar, iron, ice water, introduced pieces of ice far up into the nose; applied ice to back of neck and to nose externally, had her hands elevated, etc., without the least effect. Dr. Bechtold insufflated powdered Monsel's salts by means of a Politzer bag and a glass tube into the nose; this was effectual for a while by producing firm clots both behind and in front. Unfortunately vomiting set in and the clots were dislodged. We insufflated again, but hemorrhage continued. We now determined to cease all efforts at controlling hemorrhage, as nothing was accomplished thereby. I remained at the house during the night. Some clots had formed, and by smearing Monsel's salts over the anterior nares bleeding was checked in front. Slight oozing from behind and from the teeth during the night. Vomiting was checked by morphia hypodermically; beef-tea and milk were given freely. Patient very weak; pulse 120, skin cool.

5th.—Slight oozing from posterior nares continues. *Hæmaturia* has set in; color of urine varies between blood-red and brownish-black.

6th.—Oozing from anterior and posterior nares; hæmaturia continues unabated. Gave fl. extr. ergot ♏xx every hour; vomiting of clotted blood after third dose; dilute sulphuric acid is not borne. Three black, tarry evacuations.

7th.—Hæmaturia and oozing from anterior and posterior nares continue. New ecchymoses are forming; blood is pale-red, watery; patient very weak; pulse 96 in the morning, rises to 108–120 in the evening. Milk is given every hour. We resumed the administration of ergot. Patient is very deaf and complains of pain in the ears, especially the left, caused probably by extension of inflammation of pharynx. Suffers much from headache. Drinks several quarts of milk during the day. Very fetid smell from mouth.

8th.—Removed clots from nose and washed it out with tepid water. Hemorrhage ceased from nose entirely, but hæmaturia still continues.

At 6 P. M., patient had a chill followed by fever and severe headache; vomiting occurred; pulse 120, and very feeble. The nose was again syringed with water, and quinine administered during the night. Patient was very restless and slept but little.

9th.—Bleeding from the genitals appeared this morning; no examination made, but I suppose the blood came from the uterus; ascertained that she had stopped menstruating only three days before the first hemorrhage occurred, the flow having lasted seven days. Hæmaturia has ceased; headache and deafness continue; temperature 101°; pulse 108; tongue dry at tip; very bad odor from mouth and nose. Frequent washings, and ten grains of quinia sulphate every four hours. Patient is exceedingly weak; appetite gone; bilious vomiting in afternoon.

10th and 11th.—Patient is improving; no fever; pulse, 92, 100; bleeding from genitals continues moderately. Tr. ferri chloridi given in large doses.

12th.—Hemorrhage from genitals has ceased, but *hæmaturia* has returned; urine almost black.

13th.—Pulse, 82; appetite very good; hæmaturia

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continues. Pain in ears is less, and hearing improved.

Steady improvement followed, but the urine did not become clear till September 17th.

Counting September 2d, when she first noticed blood in her throat, as the beginning of the attack, it is seen that she bled more or less every day for fifteen days. Bleeding continued till it seemed that she was almost drained of blood. She had evidently possessed more than the average amount of blood, and her organism must have made blood very rapidly. She was up and about ten days after bleeding ceased, and in a month she was nearly as plethoric and strong as before. It must be added that she has a very large appetite and digestive capacity, eating as much as two other persons.

Eva T. is of very stout, heavy build, with a strong bony and muscular development; has light-brown hair and blue eyes, and a fair skin. Her mother was of Irish birth; her father is a German. Her family history is very bad; her mother died of consumption; the father is given to excessive drinking. She has two sisters and a brother; the oldest girl has epilepsy in a very severe form; both other children seem to be of the hemorrhagic diathesis, for they, too, bleed frequently and violently from the nose. I have, unfortunately, not been able to ascertain whether the mother was a bleeder or not, but it seems probable, as the father is certainly free from the disease.

Eva T. states that she has had attacks of bleeding from the nose as long as she can remember, and sometimes even slight cuts bled for an hour or two. She can always tell when an attack is impending by a feeling of fulness or distention, and throbbing, especially in her head. Her face is then flushed, she is excited, and yet appears to be in a dull, bewildered condition. This same appearance is noticed during her menstrual periods. She suffers much from toothache, but there is no history of rheumatism.

A remarkable fact is that when bleeding was arrested at one point it broke forth at another; thus, epistaxis was followed by bleeding from the mouth,; when this stopped, epistaxis returned, to be followed by hæmaturia; when this ceased, metrorrhagia appeared, and this was followed by a recurrence of hæmaturia.

I am not certain whether there was bleeding from the intestinal tract or not; but I thought the amount of blood vomited and passed at stool was more than could be accounted for by the quantity of blood that was swallowed.

The treatment adopted was without the least avail; gallic acid and ergot in full doses was fruitless; free purgation, advised by Wachsmuth, did not end the attack; neither did the small and often repeated doses of ergot given by him influence the disease. Quinine in large doses, recommended by Verneuil, had no effect; plugging the nares and the use of styptics was not only ineffectual and productive of much pain and discomfort, but I think did harm.

I have advised the girl to be moderate in her diet, and to take epsom salts freely when she feels hemorrhage is impending. Should this be useless, I would limit myself to the use of continued purgation by means of salines; the administration of gallic acid and ergot, and sulphuric acid; and the withholding of fluids as much as possible. Paradoxical as it may seem, I think free venesection might be useful, by rapidly lowering blood pressure.

Since the patient has passed through this formidable attack, she has twice bled from the nose; but the loss of blood was not great. The case is, I think, interesting not only owing to the rarity of the disease, but on account of the length of the attack, and the many various forms of hemorrhage which occurred.

HOSPITAL NOTES.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

Service of JOHN ASHHURST, JR., M.D.

SYPHILIS OF THE HAND.

(Reported by GEORGE WOODRUFF JOHNSTON, M.D., Resident Surgeon).

MICHAEL T., aged twenty-five years, a miner, was admitted to the surgical wards of the University Hospital on November 7, 1882, with the following history: About thirteen weeks before admission he was bitten upon the hand by a young man, a fellow workman, who was said to be afflicted with the "bad disease." Two sores resulted from this injury, one of which, at the time of the patient's admission into the hospital, presented the peculiarities of a typical Hunterian or hard chancre, while the other, having been scratched and otherwise tampered with, had taken upon itself a phagedenic form, and threatened to destroy the entire finger. Under the influence of appropriate treatment, the sores quickly lost their characteristic appearance, and two weeks later presented the following aspect: Upon the distal phalanx of the ring finger of the right hand was seen an ulcer, nearly circular in shape, and about one-half an inch in its greatest diameter. The edges of this sore, which were rather lower than its centre, were sharply defined, and to the touch seemed hard and infiltrated, while a thin blue line of new skin marked the boundary of the central healthy granulations. The middle finger, the only other part of the hand bitten, suffered more severely, and even at the time spoken of, although the healing process had gone on with remarkable rapidity, it was much distorted, and showed the marks of grave inflammatory action. The distal end seemed as though it had suffered a downward and backward dislocation upon the middle phalanx, and though doubts had been entertained as to the possibility of saving it, the joint in all probability having been opened, yet now it seemed as if nothing but the nail would be lost. Already the palmar surface of the finger was healed, and the dorsal presented a most healthy aspect.

The only other lesions noted upon the patient were a chain of enlarged lymphatic glands, buboes, extending from the wrist of the affected hand well into the axilla, first noticed four weeks after the infliction of the bite and persisting up to the present time, and an eruption which presented on the anterior aspect of the arm, just within the bend of the elbow, the characteristics of the papulo-squamous syphiloderm. One other lesion, an erythematous condition of the mucous membrane of the throat, must not, however, be forgotten.

The treatment pursued in this case consisted in the internal administration of mercury, and the externa

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use of the ointment of iodoform. The mercury was given in the form of the protiodide, in one-quarter grain doses, guarded by opium to prevent its purging. Iodoform ointment in the strength of fifteen grains to the ounce of vaseline, spread upon lint, was applied once daily to the fingers after their having been thoroughly cleansed, not because it has any specific action upon syphilitic lesions, but since it makes at once a clean and disinfectant dressing when applied to any ulcerating surface.

MEDICAL PROGRESS.

ANEURISM ABOUT THE GALL-BLADDER.—Instances of death due to hemorrhage from aneurisms on the smaller branches of the cœliac axis are certainly not very common, but PROF. HALLA recently showed an example of such a condition before the German Medical Society in Prague (*Wiener Med. Wochenschrift*, No. 5). The patient from whom the specimen was taken had suffered during life from melæna. In the œsophagus, stomach, and intestines, blood was found, which came from the duodenum, in which, at a distance of two fingers' breadth from the pylorus, an ulcer leading into the gall-bladder was to be seen blocked up with a blood-clot. The gall-bladder contained about twelve stones, and in its wall there was a small aneurism of the right hepatic artery, which had burst, and apparently led to death. A second small aneurism was also found projecting into the gall-bladder, and depending from a branch of the gastro-duodenal artery. The explanation given by Halla was that gall-stones had set up ulceration and arteritis, and so led to the formation of aneurisms, analogous to those occurring in the walls of pulmonary cavities. The binding together of the gall-bladder and the duodenum was regarded in a similar light.—*Medical Times and Gazette*, February 17, 1883.

CHOLECYSTOTOMY.—At the meeting of the Birmingham and Midland Counties Branch, held January 26, 1883, MR. LAWSON TAIT showed a patient upon whom he had performed cholecystotomy in October last, and exhibited the sixteen gall-stones which he had removed. The patient had been suffering from the usual symptoms of distention of the gall-bladder, these being, as usual, intermittent. During their existence a movable tumor over the right kidney could be felt. There seemed to be, as far as Mr. Tait could determine, a good deal of misunderstanding about the symptoms of gall-stone and its cause. As long as the stones were loose in the bladder they gave rise to little or no uneasiness, and this explained the frequent discovery of numerous gall-stones in the gall-bladder, on post-mortem examination, although they had caused no suffering during life. But if a calculus gets into the neck of the bladder and then becomes impacted, the mucous secretion of the inner coat of the bladder collecting behind the stone, distends the cyst, and its spasmodic efforts to expel its contents become the cause of agonizing pain. Till the calculus passes as far as the common duct there is no jaundice. Cholecystotomy is a very easy operation, and considering that it was originally proposed, in 1743, by Jean Louis Petat (*Mémoirés de l' Académie de Chirurgie*, tome i. p. 155), it is marvellous that no one ever attempted it until three years ago.—*British Medical Journal*, February 17, 1883.

THE POISONOUS PRINCIPLE OF EDIBLE MUSHROOMS.—M. DUPETIT recently read a note before the Académie des Sciences, in which he stated that the poisonous principle of mushrooms was insoluble in ether, chloroform, sulphide of carbon, ethylic and methylic alcohol. When in solution in water it is precipitated almost completely by alcohol, tannin, acetate or hydrate of lead, and can be separated with a precipitate of phosphate of lime. These are the general characteristics of soluble ferments rather than of alkaloids. In addition the temperature of 100° C. completely destroys its virulence; so when mushrooms are well cooked they lose their poisonous properties.

Further experiments have shown him that many of the phanerogamia contain an analogous principle.—*Journ. de Méd. de Paris*, February 10, 1883.

NEPHRO-LITHOTOMY IN A CASE OF ISCHURIA.—This case is reported by DR. THELEN in the *Centralbl. für Chir.*, No. 12, 1882. The patient, aged 27, who had been suffering from spasmodic stricture, became the subject, during an attempt at dilatation of the urethra, of an accidental fracture of an elastic catheter, a portion of which passed into the bladder. Violent inflammation was excited in the bladder, and an abscess formed in the left iliac fossa. The abscess, opened with antiseptic precautions, was behind the peritoneum and connected with the pelvis of the kidney. It was almost entirely healed within five weeks, when suddenly rigors and suppression of urine occurred. The catheter brought away only mucus and a small calculus. Destruction of the left kidney and closure of the right ureter by a calculus were diagnosed. Dr. Bardenheuer, as the only means of saving the patient's life, determined to remove the calculus, for which purpose an incision was made, extending from the eleventh rib to the crest of the ilium. In order to reach the pelvis of the kidney and the ureter, it was necessary to detach the anterior border of the kidney from its cushion of fat, by the hand. The instant that the stone was felt in the hilus it slipped back into the pelvis of the kidney, and the flow of urine through the ureter showed that the passage between the bladder and the kidney was free. In order to maintain this favorable position of the organ as long as possible, the kidney was drawn backwards and outwards, so that the pelvis was visible at the bottom of the wound. An incision was made into the commencement of the ureter; a calculus about the size of a bean and four smaller pieces were removed, and the operation was concluded by sutures in the edges of the incision in the ureter. The urine, however, passed not through the ureter, but by the wound. Four days later, Dr. Bardenheuer determined (as the urine continued to trickle out) to divide the ureter, and to fix the upper end in the wound. One month after the operation, the urine passed through this artificial ureter; the wound was uniting at parts where the urine did not come into contact; the patient, though feeble, was recovering.—*London Medical Record*, February 15, 1883.

PORRO'S OPERATION.—PROF. VON WEBER reports a case of Porro's operation in the *Allgemeine Wiener Med. Zeit.*, 1883, Nos. 2 and 3, in which he performed Porro's operation. The mother died three days after the operation; two male infants were extracted alive: of these one died two weeks later from general atrophy, while the other is still alive and vigorous.

PILOCARPINE IN PUERPERAL ECLAMPSIA.—P. CANTILENA reports a case in which severe eclampsia set in immediately after delivery in a woman, in whom albuminuria had been present during pregnancy. Pilocarpine was regularly administered in doses of two decigrammes two or three times daily, together with drastics, and in twenty-four hours the woman was out of danger, and a perfect cure resulted.—*Centralb. f. klin. Med.*, February 3, 1883.

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THE SYMPTOMS OF CANCER OF THE PANCREAS.—DR. ALOIS BIACH gives the following tabulation of the symptoms generally met with in pancreatic cancer, based upon a study of seventy-three cases: 1. Pain; 2, various dyspeptic disturbances; 3, pancreatic salivation; 4, pancreatic diarrhœa; 5, fatty diarrhœa; 6, the so-called "lipuria"; 7, the presence of a tumor in the epigastrium, which occasionally pulsates; 8, bronze coloration of the skin in occasional cases.

No one of these symptoms, however, can be regarded as sufficient for making a positive diagnosis.—*Wiener Med. Presse*, February 11, 1883.

SYPHILITIC LESIONS OF THE INTESTINES.—At the meeting of the Medical Society of Vienna on January 19, PROF. KUNDRAT related the results of investigations made by Mrazek and himself on the alimentary tract of individuals affected with syphilis. It has been said that syphilitic disease of the intestines is very rare in the adult, but more frequent in the hereditary form of the affection. The proportion of five in forty, which was the average ascertained by Birch-Hirschfeld, is regarded by Kundrat as too high. When still-born children, already in a state of decomposition, were taken into account, Kundrat found only nine cases of intestinal disease out of a total of two hundred specimens of syphilitic children. The disease of the alimentary tract was never found alone. There were always morbid changes in other organs. The small bowel was affected eight times, the large bowel twice. Generally, the whole of the small intestine was diseased, though the stress of the mischief fell on the jejunum. Two types of disease were recognized, one more or less limited to the lymphoid structures, the other irregularly disseminated along the intestines. In addition to signs of catarrhal inflammation, there was hyperplasia leading to the formation of nodules, some as large as a hempseed. The microscopical characters were like those found in other early syphilitic growths. It was noted also that the contents of the bowels were thickened, the meconium being tenacious and sticking to the wall of the intestine. The peritoneum showed alterations in the form of inflammatory products of various sorts and a small-celled infiltration around the vessels. In two instances there were perforations of the gut and purulent peritonitis. It would, therefore, seem that such perforations can occur during intra-uterine life.—*Med. Times and Gazette*, Feb. 17, 1883.

THE CONTAGION OF MEASLES.—DR. A. BECLÈRE has made a careful study of the conditions attending the contagion of measles, of which we select his more important conclusions.

Rubeola is contagious from the commencement of the period of invasion to the end of the stage of eruption, a period extending through from eight to ten days. The contagious principle is contained in the secretion of the respiratory mucous membrane, and it still remains to be proved, that it has anything to do with the cutaneous desquamation. Although this contagion is diffusible, it is so only to a slight extent, and soon loses its active properties, and does not remain in the rooms occupied by the sick. The period of incubation lasts from thirteen to fifteen days; no immunity is conferred by the presence of any other eruptive disease. —*Gaz. Méd. de Paris*, February 17, 1883.

RESECTION OF THE PYLORUS.—This operation (*Gazz. Med. Ital.*, Nov. 11, 1882) was performed by PROF. BIGI, in the Civil Hospital of Perugia, on a woman, aged 38. Cancer of the pylorus was diagnosed by Prof. Riva. The patient was much exhausted, and for some days had taken food only by the rectum. The operation was performed with antiseptic precautions, but the spray was not used. The abdominal parietes were incised to the right of the middle line; the tumor was exposed and drawn forward, with a good part of the stomach and duodenum, and was removed. Thirteen ligatures were applied, and, by a special suture, the stomach was reunited to the duodenum. Before commencing the operation, a hypodermic injection of morphia was given; the administration of chloroform was begun, but had to be suspended from the increasing debility of the heart's action. The operation lasted two and a half hours, and the patient bore it well. The temperature for a few hours in the evening reached 38.3° C. (nearly 101° F.). For the next three days (when the case was reported) it was normal, and all went well, giving every hope of a speedy cure.—*London Medical Record*, February 15, 1883.

PURULENT INOCULATION IN THE TREATMENT OF GRANULATIONS OF THE CONJUNCTIVA.—M. T. TERRIER contributes a paper on this subject, in which he states that purulent inoculation is a valuable method for treating old conjunctival granulations with pannus. This method is indicated when the pannus is complete or thick, while it is contraindicated when the pannus is thin or incomplete. The pus derived from the purulent conjunctivitis of the new-born is most suitable for inoculation, though it is not inadmissable to employ gonorrhœal pus. The ophthalmia, so produced, should not be aborted, but treated methodically so as to avoid accidents to the cornea.

In order to complete the cure it is frequently necessary to cauterize the conjunctiva with sulphate of copper, nitrate of silver, or insufflations of calomel.—*Rev. de Chirurgie*, February 10, 1883.

THE DIAGNOSTIC VALUE OF THE BACILLUS TUBERCULOSIS.—PROF. J. DRESCHFELD thinks that from his own observations he is justified in saying that, though the bacilli in the sputum are of the greatest diagnostic importance in pulmonary phthisis, and though they occur in cases where there are as yet no physical symptoms whatever, we are not as yet justified in making the prognosis dependent either on their quantity or their fully developed state as found in the sputa.—*Brit. Med. Journ.*, February 17, 1883.

A NEW GALACTAGOGUE.—According to DR. ANDERSON, nursing women in Jamaica are accustomed to drink an infusion of the leaves of *Gossyphium barbadensis*. Six or eight leaves are sufficient to make a cupful of this infusion which, when sweetened with sugar, has a very pleasant taste, may be taken to the extent of four or five teacupfuls in the day without inconvenience, and invariably stimulates the flow of milk.—*Gaz. Méd. de Paris*, February 17, 1883.

MILK DIET IN GRAVES' DISEASE.—DR. SCHNAUBERT, in Botkin's *Ejenedeln. Klin. Gaz.*, 1882, No. 13, speaks very favorably of the value of exclusive milk diet in cases of exophthalmic goitre. In one of his patients, three weeks' treatment by milk restored digestion and general health, and so greatly improved all symptoms that some weeks later the patient left the hospital relatively sound, and remained so nearly two years. At this time, she returned with highly developed signs of the disease, and though the milk treatment again greatly relieved the patient's condition, she soon died. The necropsy showed hyperplasia in the cervical sympathetic ganglia, pigmentation of roots of the cervical nerves, and cerebro-spinal hyperæmia.—*London Medical Record*, February 15, 1883.

THYROIDECTOMY.—M. DELENS read before the Société de Chirurgie a report of a case by DR. BEAURE-

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GARD, of Havre, of a man aged 28 years, who suffered from a cyst of the thyroid, of the size of a large orange, which interfered with both respiration and voice. Aspiration was practised and some blood only removed. The tumor was surrounded by an elastic ligature, and on the third day was partially separated: on the fourth day hemorrhage necessitated the application of an écraseur and the removal of the tumor. In fifteen days the wound was completely cicatrized.—*Revue de Thérapeutique*, February 15, 1883.

INTESTINAL OBSTRUCTION CURED BY ENTERO-PUNCTURE.—DR. GIULIO DOZZI (*Gazz. Med. Ital. Prov. Venete*, Sept. 23, 1882) relates the case of an old woman, aged 70, who, after eating a large quantity of watermelon, and swallowing the seeds, suffered from obstruction of the bowels. Purgatives and injections had been tried with no relief. The meteorism was enormous. He determined to try entero-puncture, using trocar No. 2 of Dieulafoy's aspirator. Four punctures were made, two in the right iliac region, the third in the left upper fourth, and the fourth in the left lower fourth. From three punctures issued an immense quantity of gas; from the fourth no gas, the trocar being plugged with fecal matter. A dose of oil given the same evening procured four copious evacuations, and the patient made a good recovery. One of the punctures gave rise to a small abscess. In this case peristaltic action was evidently prevented by the enormous quantity of gas arising from the decomposition of the retained feces.—*London Medical Record*, February 15, 1883.

THE LOCAL TREATMENT OF LUNG CAVITIES.—A. SOKOLOWSKI reports two cases of phthisical lung cavities, into which he made six injections of from six to twenty drops of a ten per cent. tincture of iodine, with a view of obtaining adhesive inflammation of the walls of the cavity. The cough became more violent, but there was no increase in temperature: after two months the destructive process had considerably extended; the result was therefore negative. In the second case, in which severe fever and colliquative sweats were present, five injections of ten drops of a twenty per cent. carbolic acid solution were made. The result was also negative.—*Centralb. f. klin. Med.*, February 3, 1883.

EXCISION OF THE PRIMARY SORE IN SYPHILIS.—PROF. TARNOVSKY (*Monat. f. Prakt. Dermatol.*) comes to the following conclusions:

1. That the primary syphilitic sore is from the moment of its appearance an evidence of constitutional infection.
2. Usually the wound heals easily after excision, and there is no return of the induration in the place; but there is no change in the course of the constitutional state; and
3. That there is no shortening by this means of the time required in treating the primary sore.

On the other hand, under the care of Prof. Grube, five cases were thus treated, and in two no secondary symptoms appeared after a lapse of seventeen and eighteen months respectively.—*Canadian Practitioner*, March, 1883.

THE VALUE OF KOCH'S RESEARCHES.—Koch has met with another opponent, this time in Germany, in the person of DR. SPINA, of Vienna, an assistant of PROF. STRICKER, who claims that many of Koch's experiments are incomplete and erroneous, and his conclusions unwarranted. He shows that the bacilli of Koch possess no characteristics which can separate them from the bacteria of putrefaction; that it is not proved that all of "Koch's bacilli" are of the same character; that they are not constant in tubercular masses, and that their extent does not correspond to the extent of the disease. He further finds fault with the characters of Koch's inoculation experiments, and denies Koch's assertion that the tubercle bacilli only multiply at a temperature corresponding to that of mammals.—*All. Wiener Med. Zeit.*, February 13, 1883.

SURGICAL DILATATION OF THE PYLORUS.—In an individual suffering from pyloric stenosis from a cicatrix, PROF. LORETA, of Bologna, after having made an incision in the epigastrium, and opening the stomach, mechanically dilated the pylorus. The result was most successful, since, on the seventh day, the phenomena caused by the stenosis had disappeared, and the patient was going on well in every way.—*London Medical Record*, February 15, 1883.

TREATMENT OF FURUNCLE.—M. E. LABBÉ thinks that the classical treatment of furuncle by incision and poultices should be abandoned, as an incision never permits all the pus to escape and poulticing simply softens the epidermis and allows of renewed inoculation. His plan is to surround the base of the furuncle with a ring of collodion, and then use the unguentum fuscum (*onguent de la mère*) as a topical application.—*Journ. de Méd. de Paris*, February 17, 1883.

A NEW FUNCTION OF THE RED-BLOOD CORPUSCLE.—From an elaborate experimental study, DR. G. FANO believes that he has succeeded in demonstrating that peptones, whether transfused or absorbed from the digestive tract, are directly transformed into blood by a process of disintegration by which coagulable albuminoids and globulin are produced. The red-blood corpuscle is the active element in producing this change, which results in a direct increase of specific gravity; probably its potassium salts are derived from the peptone.—*Lo Sperimentale*, 1882, pp. 256, 370.

TREATMENT OF OVARIAN CYSTS BY INCISION AND PERMANENT DRAINAGE.—DR. GEO. F. FRENCH believes that the operation of incision and permanent drainage of ovarian cysts should supersede all incomplete operations, and should generally be resorted to in all cases of extensive adhesions to the large intestine, bladder, uterus, liver, stomach, spleen, or brim of the pelvis. The alternative of incision and permanent drainage is either abandonment of the case, an incomplete operation, or enucleation. An operative procedure which provides for any portion of a pyogenic membrane being left in the peritoneal cavity without drainage needs only to be referred to to be condemned. The formidable nature of the operation of enucleation is indicated by the rarity of its performance. He can find no reference to the operation by Spencer Wells in his one thousand ovariotomies, and Schroeder resorted to enucleation but once in two hundred and seventy-six operations. Enucleation in suitable cases is no doubt a feasible operation, but always a very hazardous one.—*American Journal of Obstetrics*, March, 1883.

FOR MASKING THE ODOR OF IODOFORM, DR. C. SCHERK (*Pharm. Zeit.*, 1882, p. 740) recommends carbolic acid. On rubbing together 10 grms. of iodoform with .05 grm. carbolic acid and 2 drops of oil of peppermint, the disagreeable odor of iodoform is completely masked and will not appear again even on heating. The addition is somewhat less effectual if vaseline be used for the ointment; but is still more agreeable than tonka, balsam of Peru, oil of caraway, or oil of peppermint alone.—*Amer. Journ. of Pharm.*, March, 1883.

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SATURDAY, MARCH 10, 1883.

POISONING BY CHLORATE OF POTASSIUM.

WE have already, in these columns, set forth, with some particularity, the dangers to be apprehended from the free and rather indiscriminate use of chlorate of potassium since its introduction into domestic practice. Further observations on these dangers seem to be demanded in the interests of the public, and fresh warnings may be needed by the medical profession. Indeed, we have reason to believe that many physicians of large experience are sceptical in regard to the supposed toxic activity of this drug. The evidence is, however, conclusive.

In a recent issue of the *Berliner klinische Wochenschrift*, Dr. Riess gives the details of a case of poisoning by chlorate of potassium. About one ounce of the salt, which had been prepared for gargling the throat, was swallowed in the course of two hours. Not to weary our readers with needless details, it will suffice to say that gastro-enteric inflammation was produced, jaundice and suppression of urine followed. A microscopic examination of a drop of blood, obtained from the finger, disclosed important alterations. The red corpuscles were changed in shape, in diameter, and in structure. They were somewhat shrunken, ovoid, and, in part, the coloring matter in granules floated free in the serum. On spectroscopic examination, no deviation from the normal was discovered, because, indeed, none of the constituents were wanting. The autopsy disclosed wide-spread changes. The muscles, including the cardiac, were brownish-red; there were ecchymoses under the endocardium and the mucous membranes at various points; the kidneys were stained with bile pigment, the epithelium fatty and pigmented, and the capillaries choked with broken-down blood corpuscles and pigment cells; the liver relatively small, jaundiced, and the cells, especially about the central vein and along the ramifications of the portal vein, filled with pigment granules.

These observations, thus briefly outlined, confirm the previously made clinical and experimental studies of Marchand, referred to by Riess ("Ueber Intoxication durch Chlorsäure Salze," *Virchow's Archiv*, Band 77, s. 456). The confirmatory evidence is, indeed, much stronger than Riess' references would indicate. He mentions Hofmeister and Friedlander, but besides these, Buccheim, Köhler, and Ludwig, in Germany, Isambert and Richet in France, Dreschfeld, Stock and others, in England, Jacobi in this country, have published cases showing the toxic activity of chlorate of potassium, or have indicated the source and character of the dangers to be feared from its reckless administration. We can readily refer any of our readers, desirous of making further investigation, to the papers above indicated.

All familiar with the history of this agent will recall the sad fate of Dr. Fountain, of Iowa, who, entertaining some extravagant notion of the curative effects of chlorate of potassium in phthisis, and firmly convinced of its innocuousness, swallowed an ounce of the salt to demonstrate its harmlessness. The results observed in all the cases above referred to happened to Dr. Fountain. Gastro-enteric inflammation, disorganization of the blood, jaundice, and suppression of urine followed the ingestion of the fatal dose, and death ensued on the seventh day.

It is not alone the lethal or toxic dose which is capable of doing mischief. Dr. Jacobi, than whom no one is better entitled to speak authoritatively, warns the profession against the indiscriminate employment of chlorate of potash in throat affections. If an attack of tonsillitis, stomatitis, pharyngitis, or what not occurs, chlorate is prescribed. In the form of troches, powders, solutions, etc., almost every household contains it for free use in these affections. It is this indiscriminate employment of the chlorate that Dr. Jacobi condemns, for his abundant experience has furnished him with many cases of renal disease induced by it. That such an opinion is amply justified in the results of the toxic action of the remedy, is only too evident from the facts which we have submitted to our readers.

By way of supplementing these observations, we submit the conclusions of Wegscheider, arrived at after a study of thirty cases of poisoning by chlorate of potassium.

The general phenomena of fever, agitation, dysp-

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nœa, etc., present nothing of a characteristic nature, and hence are not dwelt on by the reporter. He presents the symptomatic expression of the cases in an order which we may advantageously follow: On the part of the skin, icterus and ecchymotic patches; on the side of the kidneys, diminished or suppressed urination, the urine containing albumen, Hoppe-Seyler's methæmoglobin, and a brownish pigment deposit. From the point of view of the anatomical changes, he notes, in the kidneys, the blocking of the canaliculi with masses of blood pigment, and parallel changes in the spleen and spinal cord. All the organs present an extremely characteristic chocolate discoloration.

Thus, from a large number of cases, there is a confirmation of the opinions we have expressed. Our readers should not, however, draw the conclusion that chlorate of potassium is too dangerous a substance to be employed in the treatment of disease. Rightly used, in proper doses, there can be no objection to its administration. Its indiscriminate and protracted use; its lavish application, topically and by the stomach; and its reign in the household as a remedy of universal utility, are to be deprecated and opposed by the medical profession, and by the organs of professional opinion. In suitable doses, and in affections to which it is properly applicable, there can be no well-founded objection to its administration.

COLORED HEARING.

A CURIOUS, and but little known fact, is that with certain individuals the hearing of sound is always accompanied by sensations of color. The first published observations upon this subject seem to have been made by Nussbaumer (*Wiener med. Wochenschrift*, 1873). Both this writer and his brother habitually experienced such double sensations, and even found that with each note of the musical scale a special color always appeared. Bleuler and Lehman afterward confirmed these observations, and reported that they had examined five hundred and ninety-six individuals who had this peculiarity. These cases all occurred in Germany. An article on "Color Hearing" appeared in the *London Medical Record* in December, 1881. In the November number of the *Annales d' Oculistique*, Pedrono reports in detail a case of this kind. The individual who is the subject of these double sensations discovered quite accidentally that his condition was peculiar. He had always been conscious that sound, especially that of the human voice, invariably awakened a sense of color, and that the same voice always called up the same color. On one occasion, however, a person speaking to him of a friend said, "Have you remarked his voice? It is as pretty as a yellow dog." Pedrono's patient replied very seriously, "Not at all, his voice is red, not yellow." Whereupon the bystanders roared with laughter.

Pedrono found in this case that each note of the musical scale produced a sensation of color; but, although his subject was an excellent musician, he was not able to define a special color for each note. High notes were accompanied by brilliant, low by sombre colors. But if two consecutive notes of the scale were compared, the colors appeared nearly identical. In a perfect chord a single color was produced. For instance, the chord in F major produced yellow, while that in A minor produced violet. But in an imperfect chord some of the notes detached themselves with their proper colors, although very near the general hue.

There was no appreciable difference between the colors corresponding to major and minor tones, between scales in sharps and flats. The same piece of music played upon different instruments produced different colors, showing the effect of timbre. For instance, the Bretonne melody, *Appel des Pâtres*, played on a tenor saxophone was yellow, on a clarionet red, on the piano blue. Intensity of sound produced distinctness of color. With feeble sounds the color seemed to show vibrating movements.

Noises of all sorts provoked chromatic sensations, but the colors were always sombre, generally gray or brown. When the voice was used in a conversational tone the vowel sounds only were colored, *i* and *e* being the most brilliant, *u* the most sombre and *a* and *o* intermediate. The general hue depended upon the timbre of the voice. If the voice was very strongly emitted, the consonants became barely perceptible, the sibilants being brightest. Singing simply intensified these results, each voice retaining its characteristic color. Blue voices were much the most numerous; green the most rare; yellow the most agreeable; red voices were not unfrequent. Of course, different voices represented all shades of these colors.

As to the localization of the colors, all observers seem to agree that they are projected mentally to a point just above the supposed position of the instrument which is sounding or the person who is speaking, and without reference to whether the object is seen or not. A vibrating guitar string appears to be surrounded with color, and a layer of chromatic air rests upon the keys of a sounding piano.

If anything additional to the phenomena of monocular color blindness were needed to demonstrate the existence of cerebral centres for the perception of colors, independently of all other ocular sensations, the facts adduced, in connection with the phenomena of colored hearing, would seem to be sufficient. If this be admitted it would seem unnecessary to imagine an anatomical arrangement of the nervous elements of the retina capable of analyz-

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ing luminous rays. Such analysis would be more fittingly performed in the great central cerebral laboratory, and the ingenious, but artificial and gratuitous, theories of Young, Helmholtz, Hering, etc., would be no longer required. The part played by the retina then is possibly merely to furnish the necessary sensory apparatus capable of being excited by light and color in their varying phases. But the resultant molecular vibrations of the optic nerve fibres affect, according to their nature, the appropriate cerebral centres of light, form, or color.

Whether the auditory and color centres are contiguous or are distant and connected by abnormal nerve fibers, in color hearers, it is perhaps useless to discuss here. But as sounds and colors do not correspond in all cases the latter supposition may possibly be correct. With Nussbaumer each musical note produced constantly a special sensation of color, but in Pedrono's case the color was determined by the timbre of the voice or instrument.

It seems to us that the appellation "Colored Hearing" is more applicable to this class of cases than the title "Color Hearing" which has heretofore been used. As the color perceived is manifestly a subjective excitation of the cerebral color centre, and only accompanies the sound, it is evident that the person cannot be said to hear colors which do not exist, but only that the sensation of hearing is attended by color.

SIR JAMES PAGET'S BRADSHAWE LECTURE.

THE Bradshawe Lecture is a new foundation established under the auspices of the Royal College of Surgeons of England, by the widow of Mr. William Wood Bradshawe, as a memorial of her husband.

The initial lecture on the foundation was delivered last year by Sir James Paget, and has been republished in pamphlet form. It deals with "some rare and new diseases," *i. e.*, diseases which probably are new within the present century, and while at first rare are now more common: and with the reason for this fact, due, as Paget believes, mainly to morbid conditions changing and continuing in transmission from parents to offspring. Three very excellent, chief illustrations are chosen, the arthritis of ataxics, first described by Charcot; osteitis deformans, first described by Paget himself; and phlegmasia dolens in males. All of these diseases involve such gross, macroscopic changes that the shrewd early observers who depended upon their unassisted eyes alone, and, therefore, it may be were even more on the alert to observe such changes, than we in these days of microscopic research, must have seen and described them had they met with such cases. Moreover, if only as curiosities, they would have certainly preserved bones with such changes as Charcot and Paget have described. But, in fact, no early specimens of such bones exist in our museums, and hence we must believe the diseases to be new. Brodie and Stanley, with their wide experience, never saw any case of osteitis deformans save the one Paget showed them twenty-five years ago, yet of the thirteen cases, the latter has seen in this period, seven have been noted in the last six years.

The study of "sports," or variations in botany, of hybrids and mongrels in vegetables and animals, has given Darwin many strong points in his investigations on the origin of species. Similarly, Sir James Paget advises the study of such variations of types of disease in pathology, and their relation to the standard as affected by the ever-increasing and variously combined factors in hereditary descent. Their existence may be attributed to several causes. Thus the exact counterpart of the parent is never produced. The offspring always varies this way or that, towards more perfect health or towards more marked disease; and this tendency to variation is increased by the commingling and modifying influences of the double parentage. Reversion to the types of earlier generations plays a not unimportant *rôle* in some cases; while benevolence towards the weak, a constant element in educated humanity, tends to preserve these variations from the standard of health, and to allow them to propagate, it may be, still more divergent forms.

Much of our imperfect and faulty therapeutics lies embedded in our ignorance of such types of disease. Cases deemed alike, and therefore treated alike, are often really different. Not only the good seed is needed for the abundant crop, suitable soil is also quite as necessary. Every one has peculiarities of blood, plasma, bone, muscle, nerve, which we as yet fail to recognize save by ultimate knowledge of the "constitution," *i. e.*, all the factors of health and disease of the patient and his progenitors.

Perhaps no one of our profession now living so well illustrates the aphorism *nihil tetigit quod non ornavit*, as does Sir James Paget. Eminent both as a surgeon and a pathologist, as an orator and a medical essayist, a master of flowing English, and a painstaking and shrewd observer of facts and their correlations, he writes nothing which is not worth reading, he says nothing which is not worth remembering.

To all this he adds a kindness of heart and of manner that win our affection as his learning claims our respect. No one who heard his excellent addresses at the London Congress of 1881, could fail to long for equally happy resources as a public

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speaker, and every one who reads the Bradshawe lecture, will alike envy him his wide reading, his accurate observation of disease, his powers of illustration, and his charming style. The inauguration of such a course of lectures by such a man, is a happy coincidence not often seen.

WAS THERE EVER SUCH A SPECTACLE!

IN the discussion of an appropriation for the National Board of Health, in the House of Representatives, Mr. Ellis, of Louisiana, held up to ridicule the investigation of Prof. Mallet into the pollution of water, a work, undertaken by direction of the Board, which has yielded most important results. Prof. Frankland, of the National School of Science, South Kensington Museum, London, says of this investigation of Prof. Mallet: "I consider it to be one of the most important contributions ever made to our knowledge of the propagation of epidemic diseases." In order to fully appreciate the wit of the honorable member from Louisana, which convulsed his learned fellow-members, it is necessary to say that the biological investigations were conducted in the laboratory of Prof. Martin, of Johns Hopkins University, and consisted in testing the effects of the water pollution upon rabbits by subcutaneous injections. In the following language, redolent with Congressional eloquence, the member from Louisiana paints an imaginary scene:

"'Now listen, all ye gods!' What a spectacle! In the heavy slumbrous air of the tropics the Angel of Pestilence is hovering with lungs breathing poison and outstretched wings from which death drops, preparing to swoop with the death instinct of the vulture and the fierceness of the condor upon the Southern coast. Cities grow pale and the land cowers with dread and men cry for help from the threatened death. Where, then, is the National Board of Health! Gathered about a table, that distinguished body is engaged in injecting a certain kind of water under the skin of a rabbit, just to see how the rabbit would like it, and how the health of the rabbit will be affected by it. [Great laughter and applause.] Was there ever such a spectacle!"

We answer, truly, there never was such a spectacle as this Congressional scene presented! There is probably not a deliberative body in Europe which would not have hissed with scorn at such allusions to a scientific investigation by a department of government. When we contrast such puerilities of our statesmen with the action of the British Parliament, which not only listened with profound respect to the long series of observations and experiments by which Jenner established the value of cowpox as the great and unerring preventive measure against smallpox, but voted him a half million of dollars as a reward for his services, we can appreciate the immense superiority as regards intelligence of foreign as compared with American statesmanship.

If by such stuff Congress can be led to destroy a branch of the public service of its own creation, which has won the gratitude of half the people of the United States, and the respect of the scientific world, there is little hope of soon having a permanent and useful health organization connected with the general government. That the public money will hereafter be freely expended in case of epidemic outbreaks there is no doubt. Nor is it less doubtful that it will ultimately be demanded that the medium selected for that purpose shall be some compliant political agency.

M. ONIMUS, who is known to be one of the highest authorities on the physiological effects of electricity, has lately been studying the effects of different electrical currents on uterine action. He maintains that the unimpregnated uterus contracts but feebly under the stimulation of electrical currents, as, indeed, of other agents. In the gravid state, on the other hand, its excitability is far greater. He finds that galvanism has more effect than faradism, and that both currents act more vigorously when the uterus is spontaneously in action, a fact in entire accordance with professional opinion.

MASSINI has lately compared the effects of bromhydric acid with bromide of potassium, and with monobromated camphor. He finds that its taste is not disagreeable, and that it is better borne by the stomach than are the other agents. He administered it in the various maladies for which the bromides are prescribed, and finds it to be an excellent substitute. He advises that it be given fifteen minutes after meals, and in doses of twenty drops of the ten per cent. solution, which corresponds in strength with the formula of the Pharmacopœia of 1880. He has not observed any ulterior bad effects from its persistent use.

THE oldest two training schools for nurses, in this country, are that of the Philadelphia Lying-in Charity, organized in 1836, and that of the Woman's Hospital, in 1861. The latter has heretofore graduated nurses as they terminated their courses of study at various periods in the year. They have decided, however, hereafter to hold annual public commencements. The first one will be held in the new Clinic Hall of the Woman's Hospital, on Wednesday, March 14th, at 4 P.M., when several addresses will be delivered by friends of the school.

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Members of the medical profession are especially invited to attend.

ON page 287 our readers will find the record of the yea and nay vote at Albany, on the motion to repeal the new Code. For this interesting reading we are indebted to advance sheets of the *Ephemeris*, which have been kindly forwarded to us by Dr. E. R. Squibb, of Brooklyn.

REVIEWS.

NERVOUS DISEASES: THEIR DESCRIPTION AND TREATMENT. A MANUAL FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By ALLAN MCLANE HAMILTON, M.D., Fellow of the New York Academy of Medicine, one of the Attending Physicians at the Hospital for Epileptics and Paralytics, Blackwell's Island, New York City, etc. etc. Second Edition, revised and enlarged. With seventy-two illustrations. Philadelphia: Henry C. Lea's Son & Co., 1881.

ON the first appearance of Dr. Hamilton's book, it met with harsh criticism and high commendation. Surviving both, it has come in a reasonable time to a second edition. The charges of plagiarism so freely brought against it by certain reviewers cannot be fairly sustained. Most text-books are largely compilations; and Dr. Hamilton's work has much less of technical plagiarism in it than some other recent volumes on diseases of the nervous system. The treatise of Ross, for example, might be cited in this connection. Many of the errors of the first edition have been corrected, and nearly one hundred pages and many new illustrations have been added.

Occasional evidences of carelessness are to be found scattered throughout the book, as where Greisinger is spoken of, instead of Griesinger, or Leibreich for Liebreich; or where, on page 497, he speaks of one physician as having had very successful results with the bromide of iron in chorea; and in the next sentence says that, in twelve patients to whom he administered the drug, there was no improvement after its use.

Some new matter with reference to localization has been introduced into the present edition. We note with pleasure the reproduction, on page 273, of Dr. Gowers' diagram and table showing the approximate relation to the spinal nerves of the various motor, sensory, and reflex functions of the spinal cord; but in naming the illustration the expression "spinal cords" is used instead of "spinal nerves."

We can heartily commend the book to students and practitioners as a convenient manual upon nervous diseases.

THE ART OF VOICE-PRODUCTION, WITH SPECIAL REFERENCE TO THE METHODS OF CORRECT BREATHING. By A. A. PATTOU. 12mo. pp. 106. New York: G. P. Putnam's Sons, 1882.

SIMPLY a little manual for teachers of singing, and for amateurs, indicating the proper and improper methods of respiration and vocalization; reinforced, here and there, by extracts from physicians and vocalists who have written more or less fully on the subject. It is not intended as a medical manual in any way. We have no doubt that its circulation among vocalists will be productive of much benefit.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting February 13, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

DR. GEORGE A. PETERS reported:

TWO CASES OF SARCOMA—AMPUTATION—POST-MORTEM AND MICROSCOPICAL APPEARANCES; REMARKS.

Case I. Sarcoma of Forearm; Amputation of Arm.—Julia G., born in U. S., aged 21, single, was admitted into New York Hospital, August, 1882. Fine, healthy-looking woman; no hereditary history of cancer; family history negative; no specific history. Nine months before admission, a small lump appeared on the under surface of the right forearm, quite painful at night, at times throbbing and beating. It increased in size but little until four weeks ago, when local symptoms of phlegmonous inflammation came on, and the swelling increased rapidly in size; it opened, and considerable pus was discharged. Since that time the tissues have broken down, forming a large ulcer, which has continued to increase in depth and circumference; is very painful, and from the surface there is a slight grumous and foul discharge. General health seems to be but little affected.

Examination shows on the ulnar side of the right forearm, at its middle third, an irregular, circular ulcer, with a diameter of two inches; edges elevated and everted; undermined, and surrounded by a dusky-red areola; surface irregularly excavated and deep, presenting a sloughy, fungous appearance. The surrounding tissues are indurated and thickened; the induration and œdema extending on posterior aspect of the limb up to elbow-joint. Axillary glands not enlarged. Ordered the parts poulticed.

August 27.—Poultice was stopped, and powdered naphthalin was dusted over the ulcer. *28th.*—The ulcer was found to have increased in size, the longest diameter two and a half inches; the widest one and seven-eighths inch. The cavity was filled with naphthalin, with light dressing of borated cotton. *Sept. 3.*—Patient complains of numbness in those parts of the hand which are supplied by the ulnar nerve; also pain in the arm along the course of same nerve, and strong flexion of the forearm. *14th.*—Pain in the forearm and hand continues, requiring at times the administration of anodynes; the diameter is about the same as at time of last note, but the cavity is somewhat deeper and more excavated. Induration about the ulcer increased in extent; local tenderness not great; skin in neighborhood red and angry looking. Motion of forearm and hand quite free, except that complete supination is impossible.

15th.—Amputated the arm by the modified circular method. Ether was given, and Esmarch's bandage was applied to control hemorrhage. Anterior flap formed first; incision commenced externally at junction of middle and lower third of the arm; carried in convex direction to corresponding point on opposite side; flap about two and one-half inches long. The posterior flap was then marked out in the same way, being about twice the length of the anterior one. Flaps, composed of skin and connective tissue only, were then dissected back to their base, retracted strongly, and the muscles were divided by a circular sweep with the catlin; bone sawed through; Esmarch's bandage removed, and all bleeding arteries secured with carbolized catgut ligatures. Parts were then thoroughly washed with carbolic acid solution, one part to forty; India-rubber drainage-tube placed across the face of

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the stump, deep down; edges of the flaps were then closely sutured with carbolized catgut, the drainage-tube left long at each angle, and the stump was wrapped in a complete Lister dressing, through which the drainage-tube projected.

16th.—Patient slept well during the night; tube was syringed out with weak carbolic solution every three hours. Slight sero-bloody discharge through tube. No discharge through the dressing. Temperature 100.2° F.; pulse 122; respiration 24. P. M., temperature 101.4° F.; pulse 140. Some small blood clots were washed out of the tube. Pain, probably due to tight bandaging. *17th.*—Temperature 99.2°; no pain; patient comfortable; but has no appetite. In the afternoon the dressing was removed, and the temperature ran up to 100.6°. Red blush for two inches about the wound. Superficial sloughing and suppuration. All the sutures except one at each angle of the wound removed. No union has resulted. *18th.*—Temperature 99.2°; pulse 126. *19th.*—Yesterday dressings removed, and remaining sutures taken out. Redness has disappeared, wound drains well, no accumulation; superficial union only at outer angle of wound, the rest has entirely broken down. Flaps brought together with adhesive strap, tube removed, and peat dressing applied. *21st.*—Dressing removed; free suppuration; no pocketing; union of subcutaneous tissue in outer half of wound, but a sinus runs beneath this bridge from outer angle to near the inner third of wound. On inner third the granulations are springing up from the bottom, large, florid, and healthy. Peat dressings reapplied; temperature normal. *24th.*—The cavity is rapidly filling up; deep union throughout the wound. Dressed as before. *October 5.*—Dressings removed; granulations have come up to level of the skin, a figure-of-eight ulcer remains, skin having closed in centre of stump, width of granulating surface at either extremity two inches. Slight discharge of pus. Dressed as before. *14th.*—Dressing removed; ulcer reduced to about one inch in width. Dressing changed to adhesive plaster straps, and small peat-bag compress. *24th.*—Only a small ulcer left at inner side of stump. Patient discharged cured.

Case II. Sarcoma of Arm.—Augustus B., age 35, single, cook, was admitted September 20, 1882, into St. Luke's Hospital. Four months ago the patient first noticed a tumor on the back part of right arm at lower third. He had never met with any injury in this situation, and does not think he had ever strained the muscle. The mass was the size of a walnut, and grew slowly without any pain. It was poulticed and became softer. Three weeks ago it became painful, swelled a good deal upon the outer side, and was opened, a large amount of thin bloody fluid escaping. Immediately after admission into the hospital, the incision was slightly enlarged, probe introduced, but failed to touch bone; the finger was entered, and the cavity explored. Considerable clotted and fluid blood was pressed out. Among the clots were some fleshy masses, which on section were greenish in color with yellow spots. No specific history, no family history of tumor. On admission his general nutrition was fair.

Examination shows a large tumor on outer and posterior surface of right arm. Circumference, twice that of left arm; tumor measures from above downward seven inches; from side to side nine and one-half inches; mass reaches up as high as the insertion of the deltoid muscle; downward to three and one-half inches above the lower end of the humerus. It is soft and fluctuating; not connected with bone; not movable; not tender to touch; seems to be contained entirely within the limits of the triceps muscle, and to be to a large extent embedded in it. Posteriorly and below there seems to be a distinct capsule. Tumor not lobulated. At a point near the insertion of the deltoid, there is a distinctly indurated spot. The skin over the tumor is reddened and adherent. On the outer side at middle third is an incision, from which issues a watery discharge, mixed with blood. Sections of the fleshy masses under the microscope showed them to be made up of cells of mixed character. Chiefly round, some spindled, and varying in size; many with a homogeneous, and in parts fibrous intercellular substance. There are many blood extravasations in and around which are groups of small round, non-nucleated cells. There are some bloodvessels filled with organizing clots, the walls of which show a cellular infiltration, gradually assuming the same character as above mentioned. Diagnosis: mixed celled sarcoma. Ordered carbolic dressing.

Sept. 23.—Since admission has had several hemorrhages of dark venous blood. This morning a considerable amount of clotted and fluid blood escaped. *25th.*—Last night, lost several ounces of blood. *Oct. 4.*—Patient has not pain; considerable discharge; carbolic dressings continued; temperature went up to 103° F.; says he feels well. *5th.*—The integument over the upper part of tumor has a suspicious redness; patient says that he had a slight chill in the night; temperature, 101°. *6th.*—Temperature 100°; feels in good condition; has no pain; redness disappearing; œdema very slight. *11th.*—Discharge slight; no pain; œdema and redness entirely gone from shoulder; on consultation, it was determined to amputate the limb at the shoulder-joint; this I did on the 12th, Drs. McBurney and Bull assisting; the method of Baron Larrey was adopted, viz.: A longitudinal incision involving the tissues down to the bone on the external surface, and extending from the acromion to a little below the neck of the humerus. This incision is continued on each side through the skin only, circumscribing the arm about two inches from the axilla. All the tissues about the head of the bone were now cut through, keeping the edge of the knife close to the bone, adduction and rotation being made as required. The head of the humerus was forced out, a long amputating knife was now passed down behind the bone, and the undivided muscles and the skin were cut through, the main arteries being secured between the thumb and fingers of an assistant, who followed the catling and grasped the flap. The bleeding vessels were immediately secured with carbolized catgut, the wound thoroughly washed out with carbolic acid solution, one to twenty; edges of the flap were brought together with interrupted carbolized catgut sutures; free drainage was secured by a rubber tube along the bottom of the wound emerging through an opening in the skin made for the purpose, about an inch below the lower angle of the wound; the stump was then covered with a layer of iodoform gauze, and a Lister dressing over all. In this case the drainage-tube was cut short. What is called through drainage was not used. The patient was so much exhausted by the operation as to require three or four hypodermic injections of brandy before he was removed from the operating table to the ward. *13th.*—The patient made good recovery from the ether. Pulse was good; temperature 101°. During the first twenty-four hours, the discharge appeared through the dressings, and they were removed and reapplied. The wound is looking well; no pain. *14th.*—Temperature, 102°; discharge came through; no odor; dressings reapplied. *18th.*—The tube was shortened; all sutures removed; a slight gaping at the middle of wound; temperature 100°; dressings reapplied. *20th.*—Temperature normal; tube removed; dressed with balsam of Peru and straps. The patient soon got out of bed and moved about the ward; eating and sleeping well. Two of the sinuses which existed refused

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to heal, notwithstanding the variety of dressings used. At intervals of a few days there would be a rise of temperature and a temporary set-back. *Dec. 15.*—I etherized the patient and laid the sinus freely open for a distance of three inches or more down to the glenoid cavity, packed with Lister gauze, wet with one to forty of carbolic solution. The patient kept about the ward, complaining but little, but the last wound seemed to make but little progress in healing. What he did complain of was a slight cough at night, which was temporarily relieved by drugs. No râles were heard. Physical examination revealed nothing. This condition continued until January 29, 1883, when he complained of more pain in the left side only and more cough. A careful examination gave indistinct physical signs of a small quantity of fluid in the right chest cavity; some pleuritic râles on both sides; bronchial breathing and diminished respiration. *Jan. 30.*—Pysical signs indistinct. On the posterior part of the right lung, at the lower angle of scapula, a small area of cavernous breathing was made out. A hypodermic needle was introduced into the left pleural cavity, and bloody serum, containing a few pus cells, was withdrawn. The patient was transferred to medical service. Soon after this tranfer paracentesis was performed, and sixteen ounces of bloody serum were removed from the left chest. This gave marked relief, and the cyanosis disappeared. His dyspnœa, however, soon returned, and he gave evidence of rapidly increasing chest trouble. The hypodermic needle introduced into the right chest gave no fluid. Supposed sarcomatous infiltration of right lung. He gradually sank into a stupor, and at 11.30 o'clock P. M. he died.

Autopsy.—Body well nourished, rigor mortis well marked; there is no œdema; right arm amputated at shoulder-joint. There is union of the flap, except at one point where there is an opening large enough to admit a probe one-fourth of an inch in diameter. Peritoneum is normal; diaphragm is at level of sixth rib on either side of the thorax. There are old adhesions at apex of the left lung, and over upper lobe in axillary line. Also old loose adhesions over the lower lobe posteriorly, there are old loose adhesions at apex of right lung, and also over the middle lobe anteriorly. There is about a pint of bloody serum in each pleural cavity. Heart is rather small, valves competent; endocardium of left vertricle is thickened; muscular tissue brownish. Lungs: Through both lungs, except upper portion of upper lobe of each, there are soft tumors, grayish in color, with hemorrhage into their substance in places; these are spheroidal in shape, varying in size from that of a pin-head to that of a hen's egg. Some of these tumors contain a number of cysts, which vary in size from one-eighth to an inch in diameter. The lung tissue free from these tissues, is intensely œdematous and congested. Bronchial tubes contain muco-pus. Spleen is seven by three, by one and one-half inches; is normal in appearance. Kidneys normal in size; capsules adherent; surface smooth; the cortex seems normal; there is fat in the straight tubules near the apex of pyramids. Stomach: Mucous membrane normal; intestines normal; pancreas normal; bladder normal. Right shoulder in seat of amputation had a fleshy mass, spherical in shape, about two and one-half inches in diameter, similar in consistency and appearance to secondary tumors already described in the lungs.

DR. G. L. PEABODY, pathologist to the hospital, reports as follows:

Case I.—The tumor is diffused through a muscular mass on the ulna, but does not invade the bone. Beneath the surface of the ulceration, which is covered by fibrine and granulation tissue, are large masses of small spindle and round cells with very little fibrous stroma. Under these is a dense layer of connective tissue, which contains smaller masses of cells of the above description. In this layer are numerous bloodvessels with areas of dense cellular infiltration surrounding them. In the muscular tissue are many dense isolated collections of small round cells, usually in close relation to the bloodvessels. These latter collections have separated muscular fibres from their neighboring fibres in many instances, and in other localities have apparently destroyed muscular fibres by pressure, a granular structureless mass being substituted for them. Elsewhere the perimysium is increased in amount in the neighborhood of these collections of cells, the muscular fibre being proportionately destroyed. Diagnosis: Sarcoma.

Case II.—On dissection the tumor is found to occupy the middle third and part of the lower third of the triceps muscles, leaving only a thin layer of muscular tissue betwen it and the bone. It involves the subcutaneous tissue over part of its surface; the skin only where the opening exists. The tumor is five and one-half inches long by three inches wide; the cavity contains blood-clots. The tumor, on section, is of the consistency of jelly, of a dirty gray color, and shows numerous ecchymotic spots. Examination of threads of tissue from cavity before operation showed round and spindle cells with many bloodvessels, whose walls were infiltrated by these cells. Microscopic examination of the tumor shows it to consist chiefly of medium-sized spindle cells, and some round cells, with a very small amount of fibrous stroma. There are a few giant cells and numerous bloodvessels. In the section many areas of spindle cells have been cut transversely, making them appear round. Diagnosis, sarcoma. The extremity, including the tumor, was injected on its reception. The blue areas in the section show many bloodvessels; the injection was only partially successful, the limb having become too cold during the transportation from St. Luke's Hospital to allow the injected mass to flow freely. On microscopic examination, the tumor in the seat of the operation and the secondary deposits in the lung are anatomically the same. They are chiefly made up of large and small spindle cells, a small amount of stroma, and bloodvessels. There are also throughout the entire tumor and secondary deposits small round cells, and a few large multinuclear cells. The spindle cells are furnished with large oval nuclei, and separated by a small amount of intercellular substance. The blood supply is abundant, the walls of the vessels being made up of sarcomatous tissue. The cysts associated with the secondary deposits in the lung contain a brownish fluid, which is composed of blood, fibrine, and cells, similar to those described above. The walls of the cyst are made up of different layers of large spindle cells and fibrin. Sections through the bronchial glands show similar structure to the tumors and secondary deposits.

We have here two well-marked cases of sarcoma, commencing evidently in the connective tissue, between the muscular fibres, and rapidly spreading through the muscle. In neither case was the periosteum invaded. We know very well that the common seat, perhaps the most common seat of sarcoma in the limbs is in the connective tissue beneath the peritoneum, or in the medullary cavity itself; the bone finally becoming involved. The sarcomatous tumor situated in the muscular substance has, as a rule, no capsule, but dips down between the fibres, blending almost imperceptibly with healthy tissue surrounding it. Consequently, the golden rule which is to be observed in the removal of tumors, namely, to get well down upon the capsule, and thus ensure easy enucleation, cannot in these cases be followed. There is no investing capsule. The rule in such tumors is to go wide of the apparent boundary

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so as to remove all the disease. This entire removal is so difficult and uncertain that where the tumor is situated upon the arm or legs, and has reached any considerable size, amputation of the limb is considered the wiser and safer procedure, and the amputation should be done at a distance from the disease, at or above the next proximal articulation. Unfortunately, however, even this precaution will not secure immunity. These mixed-cell sarcomas are so prone to recur that we are not able to give a patient much hope that even removal will cure. In the large majority of cases the poison works rapidly, and often before the wound made by the knife heals the tumor recurs, either in the neighborhood of its first habitation, in the cicatrix, or in some of the internal organs, notably the lungs. In Case II. the arm was removed at the shoulder-joint, at a distance above any apparent infiltration of tissue. There was no enlargement of axillary glands, and in so far as could be learned by careful physical exploration, there was no contamination within the trunk. He recovered from the operation so as to be about; was well nourished, and had good courage and an abiding faith that he would recover; yet within a period of less than four months the disease had recurred in the cicatrix, and both lungs were thickly studded with kindred tumors. A remarkable feature of this case was, that with all this appropriation of lung tissue by this diseased growth, he had no suffering until within a few hours of his death, when dyspnœa became distressing.

Case I. has progressed more favorably. After her discharge from the hospital, October 24, 1882, with only a slight ulceration at angle of the stump, she returned in the course of a fortnight or so with a condition of the limb which we feared might be a recurrence, but which proved to be only an acute phlegmon, which, under treatment, rapidly subsided, and she was finally discharged cured. She reported herself a few days ago, at which time there were no symptoms pointing to a return, either outside or in. By the kindness of Dr. Peabody, I am enabled to present to you this evening the forearm removed from Case I., and the arm from Case II. The tumor, with all its relations to the surrounding tissue, is best seen in the first specimen. The one from Case II. is more blended and less distinctly marked in its outline, for the reason given in the report the attempt to inject the veins with a colored solution was only partially successful. Consequently their course is not so well shown as I had hoped they might be. Dr. Peabody has also mounted on slides sections of the two tumors, and these specimens show very satisfactorily the internal structure of sarcoma, the various cell growths, the bloodvessels, muscular tissue, and fibrous stroma. The lungs taken from Case II. show abundant deposit of secondary sarcomata, many of which have undergone degeneration.

For notes in these cases I am indebted to Dr. Bartlett, House Surgeon to New York Hospital, and to Dr. Hunter, occupying the same position at St. Luke's Hospital.

Dr. Peters further remarked that he had been unable to find any reference to the relative proportion existing between sarcoma originating in the connective tissue, beneath the periosteum, or in the interior of bones and that originating in the muscles. He thought it probable that the variety originating beneath the periosteum occurred most frequently.

DR. WEIR recalled a case in which he removed a sarcomatous tumor from the lower end of the radius, six years ago, the patient having declined to submit to amputation, which was recommended. Recurrence of the disease took place within a year to a slight extent in one of the upper row of the carpal bones. This bone was removed, and the patient had remained well since the operation. The tumor was a round-cell sarcoma, as was also the tumor for which he had amputated at the hip-joint.

DR. F. LANGE presented the patient from whom he removed a large

TUMOR OF THE UTERUS

three months ago. A short time ago she complained of something like the molimen menstrualis, but this passed away. The stumps of the adhesions with the abdominal walls, which were of considerabls size, and had been secured between the edges of the abdominal cut (treated extra-peritoneally), had entirely disappeared, and Dr. Lange presumed that the ligated tissues had been either absorbed or softening had taken place, and they had become incorporated entirely with the surrounding parts; at all events, nothing could be found of the stumps, of which one, at the time of the operation, was about the size of a walnut.

COLOTOMY FOR ULCERATION OF THE RECTUM.

DR. LANGE also presented a patient upon whom he had performed colotomy for ulceration of the rectum, very obstinate in character, and believed to be of specific origin. The patient had been under his care for three years; had been treated both constitutionally and locally; rectotomy had also been performed, and, so far as the local disease was concerned, with only partial relief. Finally he resorted to colotomy. He first tried lumbo-colotomy, but found that the kidney was somewhat dislocated, and apprehending some interference with the function of the anus præternaturalis, he did not complete the operation, but performed colotomy in front. He showed the patient for one reason in particular. In a paper which he read before the Society some time ago, he mentioned that respiration had some effect upon the kidney, and recited some experiments made upon the cadaver which seemed to make it probable that the kidney might be moved up and down during respiration. The case presented might not prove everything in this respect, but the kidney could be felt near the spinal column, and when the patient was in a horizontal position it could be felt distinctly moving up and down, for a distance of perhaps half an inch or more with each respiratory movement. This movement of the kidney could not be observed while the patient was standing.

DR. WEIR remarked with reference to the influence of colotomy upon ulceration of the rectum, that some time ago he had under observation a patient at the Roosevelt Hospital, who had extensive syphilitic ulceration of the bowel, and on whom he performed linear rectotomy, but no relief followed. Subsequently he performed lumbo-colotomy at the New York Hospital, with the happiest results, so far as the stricture of the rectum was concerned, The patient went out of the hospital with the ulcers healed, and was gaining flesh, but other troubles developed a long time afterward, and she found her way into Bellevue Hospital, where she died; and Dr. L. A. Stimson, who had an opportunity to make an autopsy, found that cicatrization of the ulcers in the rectum was complete and satisfactory.

DR. STIMSON said that there was no marked stricture of the rectum at the time of the autopsy, and that the cicatrization was complete, as just stated by Dr. Weir. The anus in the loin was still open. A notable point was the extensive prolapsus at the lumbar orifice, the intestine hanging out of the opening six or eight inches in length while the body was lying upon the autopsy-table.

DR. WEIR said that a certain amount of prolapsus was liable to take place in every case: but he felt that a step in advance had been made by making the opening in the gut exceedingly small, only sufficient to

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admit the tip of the little finger. In the last case, in which he performed the operation for cancer of the rectum, the woman lived a year and a half, and was in every way comfortable, not being troubled with either incontinence of feces or prolapsus of the bowel. The artificial anus was simply supported by a small plug and an ordinary bandage.

DR. A. C. POST operated four years ago for an ulcerated stricture of the rectum, following protracted dysentery, the patient having been treated for a long time in the hospital without progress toward a cure. Within a few months, the patient having evacuations through the loin, the irritation of the rectum so far subsided that the ulcerated portion of the mucous membrane healed, and the rectum was subsequently dilated by the introduction of bougies, so that the patient now has nearly all of his evacuations through the natural passage, an instrument, fifty-eight millimetres in circumference, passing without much difficulty. He saw the patient last week, and at that time there had been an interval of three months since an instrument had been introduced. He found that only slight contraction had taken place, and that the bougie could be introduced with a little more difficulty than when he used it once in two weeks. The result had been very satisfactory in restoring the passages from the bowels through the rectum. There had not been any prolapsus of the colon.

DR. JAMES L. LITTLE had had one case in which there was great difficulty in keeping the opening in the loin patent. After his operation, the case remained under the care of Dr. Porter, a surgeon residing in Middlebury, Vermont, who found that the opening in the integument had a tendency to close. Tents of various kinds were used with but little effect. The wound finally closed, and the patient went six weeks without a movement from the bowels. The doctor made an incision through the cicatrix, dilated the opening with sponge-tents, after which the patient had a thorough evacuation from the bowels. The opening again closed, and it was again necessary to make an incision and dilate it, in order that evacuations from the bowels might occur. This was done three times, the opening remaining closed for about six weeks at each time; it afterwards remained open. The patient lived four years after the operation, which was performed for a growth in the abdomen pressing upon the sigmoid flexure.

The PRESIDENT asked how often a tendency to contract in the opening manifested itself in lumbo-colotomy.

DR. WEIR said that he had not found any tendency in his nine cases to contraction.

DR. SANDS said that he had not observed any tendency to contraction when the operation was performed in that locality. In one case in which he had performed inguinal colotomy, the contraction was very marked, so that it became necessary to dilate the artificial anus with sponge tents and bougies. But in that case the opening into the intestine was very small, not more than one-third of an inch in diameter.

DR. BRIDDON thought that contraction of the opening occurred only in those cases where union had failed to occur between the integument and the mucous membrane, and a fistulous tract remained.

DR. SANDS thought that Dr. Briddon's statement could hardly be accepted as a rule. In the case first referred to, he took particular pains to secure primary union of the intestinal with the parietal peritoneum, by stitching the cut edges of the latter to the skin before fastening the intestine to the abdominal wall, and by then waiting forty-eight hours before opening the intestine. When the opening was made, adhesion was complete between the peritoneal surface of the intestine and the margin of the wound in the abdominal wall. These adhesions did not break down, and he was certain that no fistulous tract remained. The contraction which took place was doubtless due to the fact that the opening in the intestine was a very small one.

DR. POST suggested that the contraction might be more likely to take place if the opening was made into the peritoneal cavity than when made into the retro-peritoneal cellular tissue, as in the loins. He remembered one case, that of a new-born child, in which he performed an operation for absence of the rectum, and was obliged to go very high up and bring down the upper part of the rectum and join it with the integument about the anus. The patient was not under observation for some time afterward, and there was considerable contraction, but he was able to dilate it by the daily introduction of a tent, and ultimately there was full size of the canal.

DR. WEIR remarked concerning non-union of the mucous membrane and the skin, that as it occurred in nearly every instance in his observation, it could hardly be considered as productive of much contraction. The mucous membrane holds only temporarily, as a rule, to the skin, and a few lines of granulation tissue finally glue the parts together.

LARGE VESICAL CALCULUS REMOVED BY LITHOTOMY.

DR. WEIR presented a vesical calculus which he had removed from a man sixty-two years of age, of spare habit; who five years ago began to suffer from symptoms of stone, and was then relieved of a small calculus by the median incision, so far as he could judge from the appearance of the cicatrix in the perineum. A very short time, however, after this operation the symptoms of stone reappeared, and increased in severity, especially during the past year. The urine was continuously bloody and voided every ten minutes in great agony. After putting the patient in bed, elevating the hips, and administering alkalies for a few days, he was sounded. The instrument entered the bladder, which was much contracted, without difficulty, but no rapping sound against the stone could be obtained; only a rubbing could be felt. It could be appreciated, however, by this exploration that the calculus was a large one. There was much tenderness in the hypogastrium, and examination by the rectum showed plainly the encroachment of the stone backwards, and gave great pain. After having examined the urine several times, and not obtaining any special evidence of kidney trouble, the patient was etherized, and a bimanual exploration was resorted to, when a stone about the size of a duck's egg was recognized. In view of the great irritability and contraction of the bladder, and the size of the stone, he determined to resort to lithotomy rather than attempt to remove so large a calculus by rapid lithotrity. The lateral incision was made and a calculus weighing 2070 grains, or four ounces and two and a half drachms, was removed. When he first introduced his finger into the bladder, he thought that there were two stones. The two stones were placed face to face so completely as to convey the impression that he had to do with a spontaneous fracture of the calculus, it was so cleanly divided. A subsequent examination of the fragments revealed that there were three calculi.

With reference to the operation, Dr. Weir remarked that the sound which he employed was the modified rectangular instrument used by Dr. Willard Parker, having a central groove with a decided stop at the end, and Dr. Weir regarded this staff as one affording considerable assistance, especially in operating through a deep perineum, as it afforded a very distinct guide for reaching the neck of the bladder, and also enabled the operator to carry the knife well in without risk of

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doing damage, because of the deep groove in the staff. He also used a very broad knife, probe-pointed, half an inch in diameter. He also determined not to attempt to extract so large a stone entire, but to crush it by means of Beketow's or Dolbeau's forceps. Also bearing in mind Crichton's method of operating, whereby so many large stones were extracted, he resorted to the comparatively free incisions, first on one side of the prostate and then to a less degree on the other, in the following way: After seizing the stone and crushing it once or twice, he seized quite a large fragment, the grasp being probably one inch, and was unable to draw it through the prostate. Accordingly, he nicked the prostate slightly upon the other side, and thus gave ready exit to the largest fragment seen in the collection. After the operation had been performed he felt that he had done a minimum amount of damage to the bladder, the prostate, and the perineum, and that he had carried out satisfactorily the technique of the operation. The patient did not present any unpleasant symptoms on the evening of the day of the operation, which was performed on Thursday, February 8th, beyond continued vomiting, which was ascribed to the influence of the ether. The vomiting, however, became persistent, and from the character of the material ejected he began to suspect that either peritonitis was supervening, or that it was due to inflammatory action in the kidney. The condition of the patient, however, steadily grew worse, and he died on Sunday night following. After the operation, and up to the time of his death, the patient said that he had similar vomiting after the first operation, and believed that he would pull through this time. At the autopsy the kidneys presented the appearance ordinarily known as surgical kidney. The left cut through the prostate was moderate in extent, and the right side was nicked to the depth of a quarter of an inch, and there was none of the evisceration of the gland so often seen after lithotomy, where a very great amount of traction has been made. There was evidence of compound inflammatory action in the bladder, which had extended up the ureters, concentrating itself more in the right kidney, where were seen two cavities filled with blood, but not containing pus. At the apex of one of the kidneys was a large cyst containing fluid in the larger proportion, and in a lesser proportion, a thick layer of degenerated pus. In other words, it and other old cheesy masses showed evidences of what Moxon had before alluded to, of the possibility of recovery from surgical kidney.

DR. POST asked Dr. Weir if he experienced any difficulty in introducing the large rectangular staff.

DR. WEIR replied that he did not in this case, but that in one or two cases previously there had been some difficulty.

SLIDING APPARATUS FOR MAKING EXTENSION IN FRACTURE OF THE FEMUR.

DR. W. S. HALSTED presented a modified Esmarch-Volkmann apparatus, which served the purpose better than those used in most of the hospitals. One of the objections to the Esmarch-Volkmann apparatus, was that it was too broad, and thus interferred with the sound leg of the patient. Again, that it was apt to jump the track. The modified apparatus which he presented was little wider than one's leg (the bed-piece being of the same size as the leg-piece), and could not become disarranged by the patient, or obstructed by the bedclothes. Furthermore, as it represented an inclined plane the knee is not at all or only slightly flexed. After the apparatus was padded it was unnecessary to bandage the limb to the leg-piece. By means of tapes the padding, which consisted simply of a folded blanket, could be raised so as to make a cushion for the tendo-Achillis. In order to prevent eversion, if any tendency to it existed, the foot was tied to the stationary vertical foot-piece, not by means of a bandage tightly over the dorsum of the foot, but by a piece of flannel stitched to the cover of the sole of the foot, and in that manner pressure over the dorsum was distributed equally. In addition, there was an improvement upon the movable horizontal foot-piece, ordinarily employed in the extension apparatus, by which it always retained a position at right angles to the long axis of the leg.

DR. POST remarked that for some time past it had seemed to him that the entire principle involved in Volkmann's apparatus was erroneous. He believed that, instead of having the railroad arrangement upon which the limb might move freely, it was better to have the limb rest upon the bed, for the sake of securing additional friction, which would assist in maintaining extension, rather than placing it upon a sliding apparatus that allowed a constant antagonism between the muscles drawing the limb up and a weight and pulley drawing it down. He believed that this objection was not merely theoretical. He remembered one or two cases, in the Presbyterian Hospital, where the result in the use of Volkmann's apparatus was quite unsatisfactory, until the railroad arrangement was abandoned, and he availed himself of the friction which assisted the action of the weight and pulley in maintaining the length of the limb, while it was lying immediately upon the bed. Of course, one can in some instances completely nullify the action of the muscles by a sufficiently heavy weight, but if you have the support of friction a smaller weight may be sufficient.

DR. G. A. PETERS said that by keeping the limb upon the bed the patient was prevented from changing position. The Volkmann apparatus enabled him to move about somewhat.

DR. POST remarked that, perhaps, the Volkmann apparatus might be to the comfort of the patient, but he believed it partially defeated the aim of the treatment. He doubted if the practical results were as good as those obtained by the other method.

DR. PETERS thought that as good results had been obtained by the Volkmann apparatus as had been obtained without it.

DR. WEIR said that he should hardly like to have the statements made by Dr. Post pass without notice. He thought that with the weight and pulley not only was traction to be made on the limb, but the friction of the limb on the bed was to be overcome, and that the influence of the friction was to a great extent obviated in the Volkmann apparatus. He had found it unnecessary with the sliding apparatus to use nearly so heavy weights as when the limb was resting upon the bed. Another advantage in the Volkmann apparatus, which did not obtain in the use of the old extension apparatus, with the limb lying upon the bed, was the ability to correct the tendency to eversion of the foot, which had heretofore been extremely difficult to avoid. According to his own experience, until Volkmann's apparatus had been employed by him, he had not been able to satisfactorily meet this tendency. Besides, patients were more comfortable while being treated by the Volkmann than by the use of the ordinary weight and pulley.

DR. POST said that he approved of the upper story of the Volkmann apparatus, but objected to the freedom of motion permitted by the lower story. His belief was that the hands of the surgeon were the proper implements with which to draw the limb in place, and not the weight and pulley, the latter being simply adjusted to maintain the limb in position where the surgeon had placed it, and not have it placed between two antagonizing forces.

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DR. STIMSON asked if the hands of the surgeon were not often insufficient to bring the limb down to its proper position.

DR. POST did not think that there was any difficulty in this direction.

DR. STIMSON thought that Dr. Post's experience had not been that of others.

DR. HALSTED thought it was difficult to estimate, by the old method, how much weight was necessary, for the reason that the patient may have his heel implanted in the yielding bed, or possibly the bedclothes wrinkled up under the limb, so as to take off the weight. He was also convinced that, in many cases, the long side-splint could not prevent eversion.

SARCOMA IN THE MUSCULAR PLANES OF THE THIGH, REMOVAL OF THE TUMOR, SECONDARY HEMORRHAGE, LIGATION OF THE FEMORAL ARTERY.

DR. POST narrated a case as follows, which had some relation to the subject of the paper read by Dr. Peters.

A week ago, last Wednesday, he operated upon a tumor of the thigh which was regarded as sarcomatous. He had not yet received the report from the pathologist of the hospital concerning its character. The disease was of about two years' standing, and occurred in a patient who was about forty-five years of age. Eighteen months ago he was in Havana, and a Spanish surgeon removed a tumor from the anterior part of the thigh near the knee. It was represented to be about the size of a man's fist. Soon afterward the tumor began to grow again, and when the patient came under Dr. Post's observation, there was a tumor extending from the knee nearly half-way to the hip, and occupying the anterior semi-circumference of the thigh. It was uncertain whether it was connected with the periosteum or not. There was a certain amount of motion which, by some of the surgeons, was regarded as flexion of the tumor upon itself. His own preference with regard to the treatment of the growth was that the limb should be amputated, but his colleagues preferred that an effort should be made to excise the tumor. After having applied an Esmarch bandage, he made a free incision very nearly the entire length of the tumor, reaching the rectus muscle, which he divided freely, and encountering a portion of the tumor which was somewhat distinct from the rest of the mass, and was so encapsulated that he could readily enucleate it. The great mass of the tumor was situated deeper among the tissues of the thigh, but it was not connected with the periosteum. In removing it, it was necessary to clip away portions of the adjacent muscles, and finally he succeeded in removing apparently the entire mass. Arrangements were made for proper drainage, and the wound was closed. The drainage-tube extended the entire length of the wound, coming out at the lower part. The drainage-tube was removed on the second day and the wound apparently pursued a favorable course, and there was no evidence of any want of reparative power. For the first two or three days the patient's temperature was somewhat elevated, 102° F. being the highest, and then it became normal. At the end of a week, finding that there was almost complete union of the edges of the wound, and a discharge of matter only through the opening at the upper part, he removed all the sutures and ligatures. That night, exactly a week after the operation, he was called up to see the patient on account of secondary hemorrhage. When he arrived the house-surgeon had opened the wound, and had tied several bloodvessels without controlling the hemorrhage. Firm pressure was being made in the groin when he reached the hospital, and he found the patient very much blanched, the pulse feeble, and he believed it to be hazardous to attempt, in the midst of such an extensive wound to lay it open and search for a bleeding vessel. Accordingly, he tied the femoral artery and there was no return of hemorrhage. The wound has been left open and is granulating, and the patient is doing well. There is a strong probability that the morbid growth will recur.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, March 1, 1883.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. W. GOODELL presented the specimens and reported a case of

DOUBLE ENUCLEATION OF UTERINE FIBROIDS.

Mrs. B., a Hebrew lady, aged 38, and the mother of five children, the youngest five years old, began early in 1880 to have menorrhagia and difficult micturition. Later, her physician, Dr. A. H. McAdam, discovered a uterine fibroid. In January, 1881, Dr. Goodell was called in to see her. He confirmed the diagnosis and found a fibroid in the anterior wall of the womb, bulging out the anterior lip of the cervix, which was greatly hypertrophied, but not at all enlarging the os. The sound gave a measurement of six inches. As all remedial measures wholly failed, he admitted her into his private hospital, and, on February 6, cut into the tumor by means of Adams' subcutaneous saw, and by enucleation removed most of it. A month later, the fragment left behind descended low enough to be removed without difficulty. The tumor weighed not quite two pounds. At the time of this last operation, a small fibroid was discovered in the posterior wall of the womb, but it was too high up to be attacked. Her convalescence was prompt, and her monthly flux became natural. On October 6, the sound gave a measurement of only three inches, and she felt well. But in the following March she again sought his advice for a return of the menorrhagia. A fibroid was now bulging out the posterior lip of the cervix but not expanding the os. The uterine cavity measured five inches. As all remedies again failed, enucleation was once more proposed, and, on February 28, 1883, the operation was performed for the second time. The posterior lip of the cervix was cut open by the saw without invading the uterine cavity, and after an hour's hard work, a tumor weighing one and a half pound was taken away in fragments. Several very beautiful and perfect fibroids as large as a pigeon's egg were also removed. They were attached to the capsule of the mother tumor merely by loose connective tissue. About a pint of blood was lost during the operation, but after the removal of the tumor the hemorrhage ceased, and the cavity left behind was not tamponed. The patient is doing very well, although the shock was somewhat profound.

In commenting upon this case, Dr. Goodell remarked that the to-and-fro linear movement of the saw made it a very efficient instrument for working in narrow channels, and that it had the further merit of lessening the amount of hemorrhage. He now used no other instrument for incising the capsule of fibroid tumors. The history of this unique case had somewhat shaken his confidence in the operation of enucleation, because since the womb is affected usually with multiple fibroids, some one of these must invariably be left behind, and a second operation may become needful. He believed that in these cases oöphorectomy, as a safer and more sure remedy, had a future before it. He had, in fact, performed the operation four days ago on a lady who was so feeble from prolonged hemorrhage, that he did not dare to remove the fibroid by enucleation, which is a more prolonged operation, and attended by

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a greater loss of blood. She was doing very well indeed. For the same reason, not daring to enucleate, he had early last year removed both ovaries for a bleeding fibroid; but after a remission of several months, the hemorrhage returned, and he will probably have to perform enucleation or hysterectomy.

DR. B. F. BAER inquired if the case in which hemorrhage returned after oöphorectomy was not of the submucous variety? Ought not the operation to be limited to the interstitial and subperitoneal varieties, where enucleation is not possible? In one case reported by Dr. Byford, of Chicago, a uterine (submucous) fibroid went on increasing and hemorrhage continued after oöphorectomy.

DR. GOODELL, from *à priori* reasoning, would expect less favorable results in submucous tumors, as they are more like polypi in their characters, and would be more likely to continue to bleed. The case referred to, in which oöphorectomy had failed, was of the submucous type, and could have been removed by division of the mucous membrane and enucleation had the patient's condition permitted it.

DR. B. F. BAER narrated the history of a case in which

INDUCTION OF PREMATURE LABOR, FOR THE RELIEF OF SUPPRESSION OF URINE.

was considered necessary. The case occurred in the practice of Drs. Marcy and Mecray, of Cape May, N. J. About the sixth month of pregnancy a general œdema was noticed, and the urine contained considerable albumen and a few casts. The amount of urine passed diminished rapidly, while the proportion of albumen increased, and the patient became weak and anæmic. Every means was tried to increase the quantity of urine, but without avail. Among the remedies used were a wide range of diuretics and hydragogue cathartics, with Basham's mixture. A sudden suppression of urine occurred at eight months, and but four ounces were passed in forty-eight hours, this became solid when heated; headache and spots before the eyes were now added to the other symptoms, a grumous discharge from the uterus had been noticed for a week, and convulsions seemed threatening. Dr. Baer was called in consultation, and he agreed with them as to the advisability of inducing premature labor. A No. 9 flexible catheter was warmed and softened, and was, after great difficulty, introduced between the membranes and the anterior wall of the uterus. The cervix uteri had been lacerated in a previous labor and was hard and small. Pains of a natural character followed immediately upon the introduction of the catheter. After some hours the pulse became weak and the patient faint, the os was but slightly opened, and it was considered advisable to administer stimulants, and the use of Barnes' dilators and the Hodge forceps, a dead child was speedily extracted. The latter had been alive in the morning. Four hours after delivery urine was secreted, and in two days the albumen had entirely disappeared. The patient recovered.

DR. D. F. WILLARD reported a case of

INDUCED PREMATURE LABOR NECESSITATED BY GREAT ŒDEMA OF THE LABIA MINORA.

The patient, probably over forty years of age, had been married about one year, and was pregnant with her first child. She suffered from headache, her feet and eyelids were swollen and her urine showed one-sixth albumen and contained casts and blood corpuscles. Basham's mixture, diuretics of every kind, diaphoretics, hot-air baths, hydragogue cathartics, and tonics were used, without a satisfactory result. Digitalis infusion and jaborandi alone gave a very temporary relief. The patient soon after her first visit called attention to the condition of the labia minora, which were found to be enormously swollen, shining, tense, and pitting on pressure. The urine amounted to from fifteen to thirty ounces per day and steadily decreased in quantity. The œdema of other portions of the body decreased under the use of digitalis, but that of the labia increased. The patient could lie only upon her back with the knees drawn up and as widely extended as possible; the pain was great and constant. Lancet punctures were made with temporary relief. The patient was steadily failing; her pulse was 150 per minute. An erysipelatous blush made its appearance and rapidly spread to the abdomen and thighs. Premature extraction of the child offered the only chance, and was at once performed. Gestation had reached eight months. It was a difficult task, as the labia were five inches in depth. Barnes's dilators and the Hodge forceps were used, and delivery accomplished in two hours. The child was dead, and the mother died three hours later.

CORRESPONDENCE.

THE BALTIMORE MEDICAL COLLEGE.

To the Editor of THE MEDICAL NEWS.

SIR: There is an item in your issue of the 3d instant in regard to the Baltimore Medical College, that is calculated to affect the standing of the school, where its character is not well known, *i. e.*, should silence be observed in regard to the matter to which it alludes. The facts in the case are briefly as follows, viz.: Dr. N. Hamilton Baker, a graduate of the Baltimore Medical College, of 1882, presented his diploma (so he writes) to the State Board of Health of West Virginia, but was required to stand an examination as a pre-requisite to practising his profession in that State. He submitted accordingly and passed a satisfactory examination before that Board, and paid the examiners ten dollars as their fee! It will be seen that the Board endorsed, by its action, the judgment of the Baltimore Medical College as to the qualifications of Dr. Baker for the practice of medicine! It has long been the custom of the United States Army and Navy Medical Examining Boards to pass those *only* who *are* qualified to enter the medical service of our common country, without regard to period of study, or whether they are M.D.'s or not; and the State Board of Health of West Virginia acts upon a similar principle, I presume; at least it should do so.

The Baltimore Medical College regards *merit* as the standard of admission to the Doctorate, and is using great effort to *elevate* the profession by conferring the degree of M.D. upon those only who are deemed *worthy* of it. Its sessions of seven and a half months is a move that meets the approval of its friends, and students are earnestly invited to attend upon these courses regularly. But, as there are no means of forcing them to do so, the standard for the degree of M.D. has been made so high that the applicant for it *must* be qualified to discharge the duties of the profession ere it can be received.

I will only remark in concluding, all that is necessary to be said in justification of the Baltimore Medical College in the discharge of its duty to its friends and the public, that it wants no better endorsement of its teaching, and its ability to decide upon the fitness of its graduates for the practice of medicine than the fact that they have been *invariably successful* in passing their examinations in a satisfactory manner to *all* the legally authorized Medical Boards before which they have appeared.

I have the honor to subscribe myself, very respectfully,

Your ob't servant,

HARVEY L. BYRD, M.D.

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NEWS ITEMS.

WASHINGTON.

(From our Special Correspondent.)

THE Army Appropriation Bill, as finally settled by conference committee and passed, allows $10,000 for the Army Medical Museum and Library, as usual; the Senate amendment having been withdrawn.

The bill limits to seventy-five the number of contract surgeons to be employed after July 1st.

The Sundry Civil Appropriation Bill, as passed, provides for the publication of Vol. V. of the *Index Catalogue*.

On the last day of February, Mr. Shallenberger, from the Committee on Public Buildings and Grounds, reported a bill to provide a fire-proof building for the Army Medical Department, together with a report in which the necessity for such a building is clearly set forth. The bill came too late in the session to be acted on, and the work must be done over again in the next Congress; nevertheless, the action of the committee marks progress, and the medical profession is indebted to Mr. Shallenberger for the interest which he has taken in the matter. The details of the report will be given hereafter.

CANADA.

(From our Special Correspondent.)

REMOVAL OF UTERUS WITH FIBROIDS.—At the last meeting of the Medico-Chirurgical Society of Montreal, S. Trenholme showed a large fibroid of the uterus which he had removed, with that organ, from a woman aged 39. The patient lived for five days, and died of exhaustion from uncontrollable vomiting. The uterus was cut off at the cervix; the body was flattened on the tumor, and a sound could be passed for nearly seven inches. The mass weighed twenty-five pounds.

THE YEA AND NAY VOTE ON THE NEW YORK CODE.—Through the courtesy of Dr. E. R. Squibb, we have received advance proofs of the March issue of the *Ephemeris*, in which appears a very interesting analysis of the action of the New York State Medical Society at its late meeting, in reference to the Code of Ethics, from which we note the following extract:

"It becomes very evident that this question is still unsettled, and is far from being settled, because on the one hand the victorious party are not satisfied with their victory, but propose to move on to greater victory by the abolition of their present code, and of all restrictions, while the vanquished are dissatisfied principally because their lost cause was a good cause on the side of morality and rectitude, and because it was lost in contravention of the expressed will of a majority of the County Medical Societies, and of the expressed opinion and judgment of nearly the entire profession of the nation outside this State."

We are also indebted to the *Ephemeris* for a list and analysis of the yea and nay vote on the motion to repeal the new code, from which we compile the following table, in which the members are grouped by counties, for the information of our readers. The names of delegates are printed in Roman, and of *permanent members* in Italics. Beneath the name of each county society is recorded the vote which represents the previous action of the county society on this question, and the number of its delegates and permanent members. The reader can thus see for himself how fully and fairly the expressed sentiment of each county society has been represented in the vote to reject the New Code.

ALBANY COUNTY.

Nay (Four Delegates; Sixteen Permanent Members).

Yea.	*Nay.*
J. W. Moore	F. C. Curtis
	J. D. Featherstonhough
	E. Van Slyke
	W. H. Bailey
	J. R. Boulware
	Wm. H. Craig
	Thomas Hun
	Joseph Lewi
	Henry March
	J. S. Mosher
	C. H. Porter
	Norman L. Snow
	A. Vanderveer
	C. E. Whitbeck

ALLEGANY COUNTY.

(One Delegate.)

J. H. Saunders — *W. W. Crandall*

BROOME COUNTY.

Yea (One Delegate; Six Permanent Members).

J. C. Edson

CATTARAUGUS COUNTY.

(Two Delegates.)

Not Represented.

CAYUGA COUNTY.

Yea (Two Delegates; Three Permanent Members).

H. O. Jewett — John Gerin

Theodore Dimon

CHAUTAUQUA COUNTY.

Yea (Two Delegates; Two Permanent Members).

Edwin Ames

H. R. Rogers

William Chace

Thomas D. Strong

CHEMUNG COUNTY.

Yea (One Delegate; Three Permanent Members).

T. H. Squire — William Woodward

William C. Wey

CHENANGO COUNTY.

Yea (One Delegate; Seven Permanent Members).

M. D. Spencer

George W. Avery

George Douglas

CLINTON COUNTY.

Nay (One Delegate; One Permanent Member).

L. C. Dodge

E. M. Lyon

COLUMBIA COUNTY.

Yea (One Delegate; Two Permanent Members).

P. V. S. Pruyn

CORTLAND COUNTY.

Yea (One Delegate; Five Permanent Members).

Caleb Green

H. C. Hendrick

Frederick Hyde

J. C. Nelson

DELAWARE COUNTY.

Yea (One Delegate; One Permanent Member).

Not Represented.

DUTCHESS COUNTY.

Yea (Two Delegates; Seven Permanent Members).

Edwin Barnes — *C. A. Nicholson*

A. Hasbrouck — *R. K. Tuthill*

D. Gurnsey

ESSEX COUNTY.

(One Delegate; Two Permanent Members.)

A. Pollard

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ERIE COUNTY.

Yea (Five Delegates; Eleven Permanent Members).

Yea.	*Nay.*
F. F. Hoyer	Lucien Howe
Thomas M. Johnson	H. R. Hopkins
S. E. S. H. Nott	
Judson B. Andrews	
C. C. F. Gay	
T. F. Rochester	
C. C. Wyckoff	

FRANKLIN COUNTY.

Yea (One Delegate).

William Gillis

FULTON COUNTY.

Nay (One Delegate; Two Permanent Members).

P. R. Furbeck	C. M. Lefler
	Eugene Beach

GENESEE COUNTY.

Yea (One Delegate; Three Permanent Members).

A. P. Jackson

GREENE COUNTY.

Yea (One Delegate; Four Permanent Members).

C. H. Chubb	*J. H. Wheeler*

HERKIMER COUNTY.

Yea (One Delegate; Four Permanent Members).

A. Walter Suiter
J. C. Casey
W. H. H. Parkhurst
John P. Sharer

JEFFERSON COUNTY.

Yea (Two Delegates; Three Permanent Members).

James D. Spencer

KINGS COUNTY.

Yea (Twelve Delegates; Fourteen Permanent Members).

George M. Baker	L. C. Pilcher
John Byrne	B. F. Westbrook
E. N. Chapman	*Walter B. Chase*
T. R. French	*Arthur Matthewson*
Joseph M. Hunt	*J. S. Prout*
Charles Jewett	
S. Sherwell	
J. S. Wight	
Joseph C. Hutchison	
B. A. Segur	
E. R. Squibb	
R. M. Wychoff	

LEWIS COUNTY.

Yea (One Delegate; One Permanent Member).

C. E. Douglas

LIVINGSTON COUNTY.

(One Delegate; Two Permanent Members.)

Not Represented

MADISON COUNTY.

Nay (One Delegate; Three Permanent Members).

	A. D. Head
	H. S. Crandall

MONROE COUNTY.

Yea (Three Delegates; Nine Permanent Members.)

Thomas B. Collins	Austin Mandeville
B. L. Hovey	William F. Sheehan
	W. S. Ely
	David Little
	John O. Roe
	E. V. Stoddard

MONTGOMERY COUNTY.

Yea (One Delegate; Four Permanent Members).

Alexander Ayres	F. G. Buckbee
S. H. French	

NEW YORK COUNTY.

(Twenty-four Delegates; Forty-three Permanent Members.)

Yea.	*Nay.*
Francis V. White	W. T. Alexander
J. W. S. Gouley	W. M. Carpenter
John H. Hinton	C. L. Dana
Robert Newman	Frank P. Foster
William T. White	Robert M. Fuller
C. S. Wood	A. G. Gerster
	V. P. Gibney
	Emil Gruening
	Alexander Hadden
	Joseph W. Howe
	Lawrence Johnson
	Daniel Lewis
	A. V. B. Lockrow
	W. F. Mittendorf
	Paul F. Mundé
	E. L. Partridge
	O. D. Pomeroy
	J. H. Ripley
	Samuel Sexton
	Andrew H. Smith
	Daniel Webster
	C. R. Agnew
	F. A. Castle
	Louis Elsberg
	George H. Fox
	A. Jacobi
	Herman Knapp
	James L. Little
	H. G. Piffard
	T. R. Pooley
	D. B. St. John Roosa
	George F. Shrady
	F. R. Sturgis
	S. O. Vander Poel

NIAGARA COUNTY.

Yea (Two Delegates; One Permanent Member).

C. N. Palmer

ONEIDA COUNTY.

Yea (Three Delegates; Twelve Permanent Members).

J. S. O'Hara	*Jacob Hunt*
H. C. Palmer	*Edwin Hutchinson*
George Seymour	
J. E. West	

ONONDAGA COUNTY.

Yea (Three Delegates; Twelve Permanent Members).

J. O. Slocum	J. D. Potter
E. Van de Warker	*R. W. Pease*
A. J. Dallas	*W. W. Porter*
H. D. Didama	*Wm. Manlius Smith*

ONTARIO COUNTY.

Yea (One Delegate; Two Permanent Members).

F. R. Bentley	*Harvey Jewett*

ORANGE COUNTY.

Yea (Two Delegates; Two Permanent Members).

John C. Boyd	Joseph Moffatt
	S. Van Etten

ORLEANS COUNTY.

(One Delegate; One Permanent Member.)

James Chapman

OSWEGO COUNTY.

Yea (Two Delegates; Three Permanent Members).

J. B. Todd	*Frank S. Low*
	D. Pardee

OTSEGO COUNTY.

(Two Delegates; Five Permanent Members.)

E. E. Houghton	A. S. Seeber
J. K. Leaning	

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PUTNAM COUNTY.
Yea (One Delegate).

Yea.	*Nay.*
	J. Q. Adams

QUEENS COUNTY.
Yea (Two Delegates; Four Permanent Members).
Wm. Woodend

RENSSELAER COUNTY.
Yea (Three Delegates; Eleven Permanent Members).

Z. Rousseau	*James C. Hutchison*
R. Thompson	*Le Roy McLean*
R. B. Bontecou	
D. D. Bucklin	
M. H. Burton	
W. S. Cooper	
E. D. Ferguson	
C. E. Nichols	
W. B. Seymour	

RICHMOND COUNTY.
Yea (One Delegate; Two Permanent Members).
Not Represented.

ROCKLAND COUNTY.
Yea (One Delegate; Three Permanent Members).
Wm. Govan

ST. LAWRENCE COUNTY.
(Three Delegates; Four Permanent Members.)
L. E. Felton
B. F. Sherman

SARATOGA COUNTY.
Yea (Two Delegates; Two Permanent Members).
T. B. Reynolds

SCHENECTADY COUNTY.
(One Delegate; One Permanent Member.)
Maurice Perkins

SCHOHARIE COUNTY.
Yea (One Delegate; One Permanent Member).
Not Represented.

SCHUYLER COUNTY.
Yea (One Delegate; Two Permanent Members).
Not Represented.

SENECA COUNTY.
Yea (One Delegate; One Permanent Member).
Elias Lester
P. M. Wise

STEUBEN COUNTY.
(Two Delegates; Five Permanent Members.)
E. Allison
M. J. Baker

SUFFOLK COUNTY.
(One Delegate; One Permanent Member.)
Not Represented.

SULLIVAN COUNTY.
Yea (One Delegate).
W. F. Webster

TIOGA COUNTY.
(One Delegate; Two Permanent Members.)

W. L. Ayer	*C. R. Heaton*
	C. L. Stiles

TOMPKINS COUNTY.
Nay (One Delegate; One Permanent Member).
S. H. Peck

ULSTER COUNTY.
(Three Delegates; Five Permanent Members.)

George W. Cooke	S. Schoonmaker
George C. Smith	H. R. Winter

WARREN COUNTY.
Yea (One Delegate).

Yea.	*Nay.*
D. B. Howard	

WASHINGTON COUNTY.
Yea (Two Delegates; One Permanent Member).
A. J. Long

WAYNE COUNTY.
Yea (Two Delegates; Four Permanent Members).
Not Represented.

WESTCHESTER COUNTY.
Yea (Three Delegates; Six Permanent Members).
A. M. Campbell

WYOMING COUNTY.
Yea (One Delegate).
Not Represented.

YATES COUNTY.
(One Delegate; Three Permanent Members.)
B. L. Holt

ALBANY MEDICAL COLLEGE.
(One Delegate.)
S. B. Ward

SYRACUSE UNIVERSITY.
(One Delegate.)
W. T. Plant

UNIVERSITY OF CITY OF NEW YORK.
(One Delegate.)
F. R. L. Drake

NEW YORK ACADEMY OF MEDICINE.
(Five Delegates.)

John G. Adams	W. R. Birdsall
	A. M. Jacobus

An analysis of this vote shows that of 136 authorized *delegates* 103 were present, and of these 53 voted yea and 50 nay. Of 255 *permanent members* 101 were present, and of these 46 voted yea and 55 nay.

During the past year, of the 59 county societies 37 voted against the New Code, and 5 endorsed it, and 17 are not known to have taken any formal action in the matter.

In commenting on this analysis the *Ephemeris* says:

"Of the 59 County Societies, 42 at least are known to have ranged themselves on one side or the other of this issue; 37 have taken positions equivalent to voting yea, and 5 equivalent to voting nay, on these resolutions. Of the 42 societies, 35 were represented by delegates at this meeting. The delegates of 29 societies sustained the action of their societies, and those of 6 societies reversed the action of their constituent bodies.

"Of the 42 societies, 22 were present and voting by permanent member representation. The permanent members from 12 of these societies sustained the action of their societies, and from 10 they reversed the action of their societies.

"Taking the delegates and permanent members together in a majority county vote, the total representatives of 23 counties sustained the action of their societies. Those of 8 counties reversed the action of their societies, while those of 7 counties gave tie votes.

"This shows that in many instances the delegates, having practically no Code of Ethics, felt at liberty to defeat the majority in the societies represented, or misrepresented, by them. Under such a system the question of how primary organizations can possibly be

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represented in secondary representative organizations in the absence of a Code of Ethics seems to be an unsolved problem in the representative form of self-government by majority rule. In one known instance a delegate voted against his individual convictions in order to support the majority vote of the Society which sent him. And in another instance the delegate as deliberately voted against the majority in the Society which sent him, and, therefore, defeated that majority, and each of these delegates represented a county.

"It can hardly fail to interest any one who looks over this table to see the full attendance and solid voting of Albany and New York counties; and it is equally interesting to see what the result would have been with these two counties left out, or with room in them for the same diversity of opinion shown in other counties."

WHAT IS SAID OF IT.—The success of the New Code, as so far obtained, is most likely attributable to the indefatigable efforts of a few prominent specialists, who alone will be benefited pecuniarly by the bridging of the chasm heretofore existing between regular medicine and charlatanism.—*Nashville Journal of Medicine and Surgery.*

Notwithstanding all the touching and beautiful talk in the New York County and State Medical Societies in regard to the matter of "humanity" and the "elevation of the standing of the profession," it would at first sight seem rather a significant fact that the new code agitation was entirely inaugurated by specialists, and that every man who has taken at all an active part in securing its adoption and preventing its repeal is a specialist. It is probably, however, only a curious coincidence that the specialists are the ones who must necessarily derive the largest amount of pecuniary benefit from consulting with all "legally qualified practitioners of medicine." Among legally qualified practitioners our new Code friends in New York will, no doubt, be much pleased to learn that they may now have the opportunity of meeting in consultation the noble and good Dr. Buchanan, lately of Philadelphia, who, we are informed on excellent authority, is now a registered physician in their city, and who, having graduated from Moyamensing, as well as a medical college, must have had special opportunities of study and experience, which the profession and public ought not to be slow in availing themselves of.—*Boston Medical and Surgical Journal.*

THE NEW YORK POLYCLINIC has had one hundred and twelve physicians studying in the various classes since November 7th last; and two thousand five hundred patients have been treated in the Polyclinic Building within this period.

MEDICAL DEPARTMENT OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—The Annual Commencement of this institution was held at Little Rock, on February 21st, and the degree of M.D. was conferred on four candidates.

THE COUNCILLORS OF THE MASSACHUSETTS MEDICAL SOCIETY AND THE COLUMBUS MEDICAL COLLEGE.—In accordance with the recommendation of the Committee on Medical Diplomas, it was voted that the Columbus Medical College, of Columbus, Ohio, be dropped from the list of medical colleges whose diplomas are recognized for admission to the Society

THE ATLANTA MEDICAL COLLEGE.—The twenty-fifth annual commencement of this school was held on the 28th of February. The Rector, Dr. J. A. Gray, reported that there had been in actual attendance at this session of the college 126 students, representing ten different States, as follows: Georgia 94, Alabama 12, Texas 5, South Carolina 5, North Carolina 4, Arkansas 2, Mississippi 1, Louisiana 1, Florida 1, Vermont 1. Of this number 66 were first course students, and 60 were second course. Of these, 39 composed the graduating class. After the conferring of the degree, ex-Chief Justice Bleckley made a few remarks, and then recited an original poem on "Patients and Patience," which will be found in another column.

FRENCH OPHTHALMOLOGICAL SOCIETY.—A Society of Ophthalmologists has recently been formed in France, and has just held its first session under the presidency of M. Dufour, of Lansanne.

MEDICAL EDUCATION IN GERMANY.—The Association of Physicians of Munich has recently addressed a petition to the Federal Council, asking an extension of the necessary period of study from four to five years.

THE TWELFTH CONGRESS OF THE GERMAN SURGICAL ASSOCIATION will be held in Berlin, from April 4th to 7th, under the presidency of Prof. von Langenbeck.

JOHNS HOPKINS HOSPITAL.—The Annual Report of the Building Committee of the Johns Hopkins Hospital, for 1882, has been published. The work during this year alone has been the completion of exterior work on the Administration Building, the erection of the amphitheatre, dispensary, autopsy building, and laundry—together with the grading, draining, etc., of the grounds—all at a cost of $142,976.83. The income from the Hospital Trust Fund for the year, less taxes, was $153,419.80. The total amount expended upon the hospital to January, 1883, is $1,304,167.31. Of this amount the work upon fourteen buildings has cost $883,484.96, the lot $279,522.06, and grading, etc., $142,160.29. The building estimate for the ensuing year is $205,450.

PREVENTION OF SCARLET FEVER.—In view of the recent prevalence of scarlet fever in Hartford, New Britain, Meriden, Middletown, New Haven, and other towns in Connecticut, the State Board of Health has issued a circular (No. 8) on the prevention and restriction of this disease. Isolation until six or eight weeks after convalescence has been fairly established, disinfection during treatment, and fumigation by burning sulphur at the conclusion of the case, are the measures recommended. It is urged that a hospital for contagious diseases would save many lives, as in crowded tenement houses isolation is out of the question. "The idea, at first, is not a popular one, but once established, its powers for good will dispel all objections." Legal enactment is considered desirable to secure the abolition of public funerals in cases of death from this fever. The disinfectants recommended are:

1. For cotton and linen goods, for washing the hands, and almost all uses, sulphate of zinc, four ounces; common salt, two ounces; water, a gallon. Double the strength should be used about the bodies of those dying from scarlet fever.

2. Copperas, a pound and a half to the gallon of water, for sewers, drains, and excreta.

3. Lerned's disinfectant possesses the advantage of giving off non-stifling odors, and can be used to fumigate halls, entries, and rooms while occupied. It is considered effectual, and has been largely used. It does not take the place of sulphur for *complete* fumigation.

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AN ANTI-VIVISECTION MEETING AT MANCHESTER.—"The hard-hearted men of science" routed the English anti-vivisectionists, at a recent meeting at Manchester of the local branch of the International Society for the Suppression of Vivisection. The chief speaker, a clergyman, had launched the usual declaration against vivisection, when Prof. Gamgee, Dr. Stocks, and Mr. Dreschfeld arose and so changed the current of public opinion that the anti-vivisectionists found themselves almost deserted, and their resolutions, condemning vivisection under any circumstances, were rejected amid cheers by an overwhelming majority.

GERMAN CRITICISM.—Under the heading of "*Esprit Critique des Allemands*," the *Revue de Thérapeutique* draws a parallel between the criticism of Esmarch on the conduct of the case of President Garfield, and the comments on the treatment of Gambetta by Prof. Niemeyer, who is said to have called the French surgeons a pack of blockheads (*ânes bâtés*), and that Gambetta's wound was not fatal, but that he died of his physicians.

NUTRITIVE PROPERTIES OF RICE.—The increase in the consumption of rice has lately attracted the attention of several men of science in Germany, and, amongst other investigations, an attempt has been made by Prof. Voit to discover the relative capacity which various forms of nourishment possess of being incorporated into the system. He has drawn up the following table of the percentage which remains in the body, and of that which leaves it:

	Percentage incorporated.	Percentage which is not retained.
Meat,	96.7	3.3
Rice,	96.1	3.9
Eggs,	94.8	5.2
White bread,	94.4	5.6
Maize,	93.3	6.7
Potatoes,	90.7	9.3
Milk,	88.9	11.1
Black bread,	88.5	11.5

According to these results (the *Bremer Handelsblatt* remarks), meat and rice leave the smallest amount of residuum, and occasion the smallest excessive exertion to the digestion, and in fact introduce the minimum quantity of ballast into the human frame. Dr. König, of Münster, considers that the fact of large masses of population living on rice is easily accounted for, and in summing up the information collected upon the subject, Prof. Voit remarks that potatoes, when consumed in excessive quantity, fail to nourish the frame effectively, make the blood watery, and render the muscles weak. Apart from the subject dealt with in the table drawn up by Prof. Voit, the question of the relative nutritive value of rice and potatoes has been investigated by Dr. König, who is of opinion that if similar quantities of both articles are compared, the former possesses four times the value of the latter in really nutritive properties. It is also remarked that the introduction of rice as a substitute for potatoes is facilitated by the fact that no such variation takes place in its quality as is the case with the potato, which is liable to be materially influenced by the effects of unfavorable weather.—*Lancet*, Dec. 30, 1882.

THE PUBLIC HEALTH IN CONNECTICUT.—The secretary of the State Board of Health in his report for January, just issued, states that the death-rate of January, 1883, compares unfavorably with that of the same month for the three preceding years. The presence of scarlet fever in many places increases the death-rate, to which also pneumonia contributes more than the usual proportion, although usually one of the prominent diseases of the month. Catarrhal diseases, colds, and the milder forms of bronchitis have been unusually prevalent; the changeable weather probably induces carelessness. There have also been quite a number of cases of broncho-pneumonia, so called, which begins as a case of bronchitis, often not severe, and giving no indications of danger until symptoms of a severe type of lung fever supervene without warning, often involving both lungs and terminating fatally. This is an insidious and dangerous disease. In Hartford scarlet fever was followed by diphtheria and croup, which have been very fatal. There have been no deaths from typhoid fever nor from malarial diseases in Hartford; indeed, malarial diseases are apparently decreasing quite rapidly in this immediate vicinity. The mild winter, however, is favorable for an increase when warm weather ensues.

In New Haven whooping-cough has been almost if not quite epidemic, causing ten deaths, which indicates either a much greater prevalence than the same number of deaths would in most diseases—for it is seldom fatal—or else an unusually severe type. Measles have also been very prevalent there, and also in several towns in that region. There have been a few cases in Hartford.

Scarlet fever has been prevalent quite extensively in Hartford, while it has decreased very decidedly during the month in New Britain and Meriden, also in Middletown; it has apparently just reached New Haven, which reports but four deaths, although there had been occasional cases from time to time. It has extended over considerable territory, and the cases have been quite numerous. The type has been apparently much more severe in the cities, where the sanitary conditions of the children would naturally be worse in many instances. It is reported as still prevalent in Suffield, but commencing to decrease—half the estimated number of cases that there were in December, when it was epidemic and the cases severer. It is also reported from Plainville, Avon, North and South Manchester, Talcottville, Stafford, South Britain, Haddam, Hampton, and Ansonia. It is apparently advancing, as new territory is reported each month.

Measles has been unusually prevalent in Thomaston, where there has been a sweeping epidemic. Over fifty cases were reported in January. Bronchial complications were frequent. It has not been unusually fatal; but few deaths are reported anywhere. It has been prevalent in New Haven and Ansonia, and many towns in the southwestern part of the State, often, as in New Haven and Ansonia, accompanied with whooping-cough. Measles is also reported from South Manchester, Plainville, and Plymouth.

Diphtheria is reported from several towns, but in none as epidemic or unusually frequent.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending February 24, 1883, indicate that intermittent fever and pneumonia have considerably increased; that influenza, tonsillitis, and whooping-cough have increased in area of prevalence. There was no marked decrease in any disease reported.

Including reports by regular observers and by others, diphtheria and scarlet fever were each reported present during the week ending February 24th, and since, at sixteen places, and measles at eleven places. One case of smallpox was reported at Detroit, February 24th.

THE LOUISIANA STATE BOARD OF HEALTH AND THE NEW ORLEANS AUXILIARY SANITARY ASSOCIATION.—In December of last year the State Board of Health of Louisiana adopted resolutions to the effect that the period of usefulness of the Auxiliary Sanitary Associa-

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tion had passed, in that it had ceased to be auxiliary in attempting to become supercidiary. This action was brought about by a well-meant effort on the part of the Association to have more active measures adopted for the suppression of smallpox, which had then made its appearance in the city. That such measures were required, is shown by the progression of the disease during the first eight weeks of the present year. The mortality during this period has amounted to 187, the weekly figures having been as follows: 11, 13, 25, 13, 33, 31, 21 and 40.

Recently, a petition of citizens has been presented to the Board, having for its object a repeal of the resolutions in relation to the Sanitary Association. At its meeting, on March 1st, the Board considered this, and adopted the following:

Resolved, That the State Board of Health of Louisiana will agree to rescind said resolutions when the New Orleans Auxiliary Sanitary Association shall have adopted the following:

1. The repeal of the resolutions, adopted by it, indorsing the National Board of Health, and urging its perpetuation.

2. The adoption of a resolution indorsing and sustaining Louisiana's legal health representative and guardian, the State Board of Health, to which they profess to be auxiliary.

JAPANESE HEALTH REPORTS.—The weekly reports of the health authorities of the city and province of Nangasaki, Japan, compare favorably with those issued by many of the municipalities which have been reared by Indo-European civilization. They are neatly ruled and printed in blue ink, on thin, strong paper, and the hieroglyphics, which run along the upper and right hand borders, with those, presumably indicating number, inserted in the columns, pique the curiosity of our western and uncivilized eyes to know what is meant by them. Fortunately we have also received translations, by which we find that the health officer in Japan, or at least in this province, reports concerning certain diseases, to wit., cholera, smallpox, diarrhœa, paralysis, nerve fever, and fever, the number of cases in each district remaining on hand from last report, taken sick since then, recovered, died, and remaining under treatment, the entries under each heading being double, and specifying the sex of the patients. The totals are given at the foot of the page, and an appendix furnishes the status of each disease from some starting-point or previous date, which does not appear in the translation, giving the totals under the various headings since that date.

When our health officers get as far as this in observing and recording the movement of disease, we shall have reason to congratulate them.

NOTES AND QUERIES.

CASES OF TRANSFUSION OF BLOOD.

DR. THOMAS G. MORTON, of Philadelphia, is desirous of securing the histories of all unpublished cases of transfusion of blood which have occurred in this country; and on application will be happy to furnish blanks for their registration.

PORRO OPERATIONS IN ITALY.

IN our last number, under this heading, we remarked, that "it would be interesting to know how many of the children survived." To this query, Dr. R. P. Harris replies. There have been, as far as published in the journals of Italy, 43 Porro operations in that country, saving 18 women and 33 children. The last 28 operations, dating from May 16, 1879, saved 14 women, or 50 per cent This may be considered a fair estimate of the mortality of the operation at the present time in Italy, in making a prospective calculation of the risk. The earlier the operation, after labor has fairly commenced, the greater the hope of success.

"PATIENTS AND PATIENCE."

A POEM read before the Graduating Class of 1883, of the Atlanta Medical College, by Ex-Chief Justice Logan E. Bleckley.

The question of questions is now to be met!
The practical question, how patients to get?
The patience of Job, since Job has retired,
May either be purchased or borrowed or hired;
The first thing to ponder—to ponder and probe,
Is, how to acquire the patience of Job.
When he was in practice his patience was much;
And every young doctor needs plenty of such—
The patience to labor, to learn, and to wait,
To suffer, endeavor, endure, and be great.
Job's practice was simple; his treatment was what?
Some ashes, and scraping with pieces of pot;
Then silence a week; then cursing a day;
Then railing at everything others could say.
How unscientific! and yet, as we read,
No practice than his could better succeed.
The patient recovered—remained on the stage
Through four generations, and died of old age.
The fee was a fortune! He got, we are told,
Unlimited money and ear-rings of gold—
With camels, and asses, and oxen, and sheep,
By thousands—much more than his pastures would keep.
Ah, Job had the patience, the time, and the place!
His riches, remember, were all for one case.
Whatever you covet, or merit, or earn,
Depend upon patience to make the return.
Your science and learning, you latest M.D.'s,
Your medals and honors, diplomas, degrees,—
Why, Job's were as nothing contrasted with these,
But they never will bring in such fabulous fees.
If doctors have patience, the patients will come;
Some cannot have all, but they all may have some;
If patients have patience, 'tis safe to foretell
That twelve to the dozen are sure to get well.
Whoever says "patients" has "patience" to say:
By name and by nature, in both there is pay.
That like will cure like, is the hint that peeps through:
"*Similia similibus curantur*," often is true.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM FEBRUARY 26 TO MARCH 5, 1883.

BURTON, HENRY G., *Captain and Assistant Surgeon.*—The leave of absence granted October 2, 1882, is extended two months.—*Par. 2, S. O. 49, A. G. O., February* 28, 1883.

CALDWELL, D. G., *Captain and Asistant Surgeon.*—To be relieved from duty at Fort Fred. Steele, Wyoming Territory, and will report in person to the commanding officer Fort Laramie, Wyoming Territory, for assignment to duty at that post.—*S. O. 23, Department of the Platte, February 27*, 1883.

PAULDING, H. O., *Captain and Assistant Surgeon.*—The leave of absence granted in S. O. 11, Department of the Platte, January 27, 1883, is extended twenty days.—*S. O. 23, Military Division of the Missouri, March 2*, 1883.

FESSON, LOUIS S., *Captain and Assistant Surgeon.*—To be relieved from duty at Fort Clark, Texas, and assigned to duty at Fort Ringgold, Texas, as Post Surgeon.—*Par. 5, S. O. 20, Department of Texas, February 21*, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL LECTURES.

ON THE TREATMENT OF DISEASES OF THE NERVOUS SYSTEM.[1]

BY PROF. DUJARDIN-BEAUMETZ,

MEMBER OF THE ACADEMY OF MEDICINE, PHYSICIAN TO THE HOSPITAL ST. ANTOINE, PARIS.

THE NERVOUS SYSTEM FROM A THERAPEUTIC STANDPOINT.

GENTLEMEN: I do not make light of or conceal the difficulties of the task which I enter upon to-day. The study of the treatment of nervous diseases is, in fact, one of the most delicate and most difficult, for to the hygienic and medicinal measures with which we have thus far been occupied, we must add a certain influence of a moral kind, exerted by the physician, an influence altogether personal, which plays often a preponderating part, and which constitutes a veritable moral therapeutic agency, respecting which it is not at all easy to furnish precise and exact data. That obscurity and that hesitation which attend us at every step in the treatment of nervous diseases, result from a number of circumstances. Although, during the last twenty years, the study of affections of the cerebro-spinal axis has made immense progress, and this especially in our own country, under the powerful and sage impulsion which Prof. Charcot has given to the School of the Salpêtriére, there exists still, unhappily, numerous lacunæ in this study. Physiology itself, which has accumulated, for a great many years past, an innumerable number of works on this special subject, is far from having solved all the problems of the vital and physiological functions of the nervous system. As for therapeutics, it must be confessed that this department of medicine is still less advanced; not being able to base itself on positive physiological and pathological data, it has drifted about, having no guide but empiricism and tradition.

I believe it my duty, however, to show you in these lectures the office of the physician in diseases of the nervous system, and what he can accomplish in certain cases by sage and reasonable therapeutic measures. But that you may well understand the difficulty of the subject of which I am going to treat, and how fragile the physiological and therapeutical basis is on which rests the treatment of nervous diseases, I am going to devote this first lecture to the study of the nervous system from a therapeutic standpoint.

The nervous system, reduced to its simplest expression, may be represented by two elements, a nerve-cell and a conducting tube.

The nerve-cell, as you are aware, is composed of three parts: a nucleus, enclosing a nucleolus in its centre, a peripheral, homogeneous substance, and an excessively fine envelope. These cells present prolongations, more or less numerous, and their volume offers variable dimensions.

As for the nerve-tube, it possesses an investing membrane—the neurilemma. This neurilemma surrounds the nerve-fibrils, which are themselves constituted of three parts: an axis cylinder, continuation or prolongation of the cell; a transparent membrane, constituted by the myeline; and an external tunic.

As for the chemical composition of these substances, it has for its basis certain phosphorized oils, whose essential principle, according to Liebreich, is a neutral phosphorized body, which he has described under the name of *protagon*.

These cells and these nervous tubes, associated in divers ways, constitute the nervous system in its entirety. I do not purpose to enter into details of this structure; this is a point quite outside of my subject, and which would demand for its complete exposition, numerous lectures. But I desire, before going further, to draw a first conclusion from the several details into which I have just entered respecting the constitution of the nervous system. I refer to the application of phosphorized substances, and of phosphorus, to the treatment of diseases of the cerebro-spinal axis.

From the fact that nervous substance contains a large proportion of phosphorus, it is by no means demonstrated that the diseases of the nervous system, and in particular temporary perturbations of this system, such as those which constitute hysteria, for instance, are accompanied by a diminution of the phosphorus contained in the protagon. And even were this fact demonstrated, it would be necessary to prove that phosphorus, or phosphorized substances introduced by way of the stomach, are utilized for the nutrition of the nervous system; which is very doubtful. We encounter here (and shrouded in even greater obscurity) the same therapeutical problem which met us in the past, and which meets us to-day, respecting the action of ferruginous medicines. From the fact that iron is a constituent of the blood, we do not the better understand the *modus operandi* of chalybeate preparations. So we ought not to conclude, because phosphorus is an integral part of the nervous system, that therefore, *à priori*, the preparations of phosphorus are indicated in diseases of that system.

Seat of intelligence, sensibility, and movement, the nervous system plays a still more important part when we study its influence on nutrition throughout the entire animal series. The celebrated experimentation of Claude Bernard, in 1851, opened new and unlooked-for horizons respecting the *rôle* of the nervous system in the organism; and leaving one side all the discoveries which have flowed from this experimentation, I will consider only those which have a bearing on therapeutics.

Heretofore, in the study of medicinal substances, their action on the blood, and on the parenchyma of the viscera, was alone taken into account; it was thought that medicaments introduced into the economy modified the constitution of the blood, or even the tissue elements themselves, and from this double action their therapeutic and toxic effect was derived. The discovery of the vaso-motors, in showing us that the circulation, secretion, intimate nutrition of the tissues are under the dependence of special nerves—vaso-constrictors, vaso-dilators, trophic nerves—has considerably modified this experimental study, and even suggested the thought that henceforth the key to the great problem of the physiological and therapeutical action of the greater part of medicinal substances is to be found in the influence of these substances on the nervous system—on nerve-tubes and nerve-cells.

My duty now is to point out to you what are the positive facts pertaining to this subject, and what, unfortunately, are the too numerous points of uncertainty and obscurity.

[1] Translated, with permission of the author, from advance sheets, by E. P. Hurd, M.D., of Newburyport, Mass.

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I cannot examine all the medicinal substances and acquaint you, for each one of them, with the positive and negative facts which are furnished us by experimental therapeutics, *àpropos* of their action on the elements of the nervous system.

This task would be immense, and would embrace therapeutics in its entirety. I have time only to consider briefly certain medicaments in their action on the cerebro-spinal or vaso-motor apparatus, and whose effects have been the most studied and are the best known.

Those medicaments which act on the cerebro-spinal axis, and whose effects are best known, are certainly the anæsthetics, which modify and alter, at a given moment, the functions of the nervous system. I propose here to examine, with reference to their modifying action on the nervous system, two substances—chloroform and alcohol.

Claude Bernard has given us a series of experimental researches on the action of chloroform, which are a model of their kind. In one fundamental experiment he shows us first of all, that chloroform cannot act unless it be absorbed by the blood and carried to the cerebro-spinal axis. I spoke of this last year when treating of the penetration of medicaments by the air passages, and will not return to it now. By repeated experiments he sought and obtained a solution of the second part of the problem which he set before himself, namely, what is the *rôle* respectively of the cerebrum and the spinal cord in this anæsthesia? Both are affected independently by anæsthetics; but the cerebrum, as Claude Bernard says, is the centre of centres; that is to say, when it is under the influence of chloroform, the anæsthesia generalizes itself over the whole economy, while, on the other hand, when the spinal cord alone is affected, the anæsthesia extends over only a limited zone of the organism.

By an attentive study of the phenomena which characterize the action of anæsthetics, the illustrious physiologist shows that the cerebro-spinal axis is not affected in all its parts at the same instant, and that, on the contrary, each one of them successively submits to the influence of the medicament. This order of succession is the following: The brain is first taken, and the consciousness of the ego is at once lost, but the spinal cord remains intact, and the reflex movements of the whole body persist. In a more intense degree of anæsthesia the spinal cord in its turn is overcome, but the medulla oblongata remains unharmed, presiding over the movements of circulation and respiration, which continue their function in a veritable cadaver, when every other sign of life has disappeared; the reflexes are abolished, anæsthesia is general, muscular collapse is absolute. But if you keep on increasing the dose of chloroform, the rachidian bulb is taken in its turn, and the animal succumbs; and in the interesting communication which he has lately made to the Academy of Medicine, Vulpian has shown us that if the rachidian bulb seems to be intact, it is nevertheless affected, and that in a chloroformed animal, it is only necessary to induce a slight nervous shock to suspend the functions of the medulla oblongata in its turn.[1]

By these experiments we see clearly set forth the part which pertains respectively to the circulation and to the nervous system in the action of the medicinal or toxic substance; the circulation bringing from the periphery to the nerve-centres the medicinal substance, and these, when affected by the medicament, generalizing the effect from the centre to the periphery. But this does not suffice; it is necessary to penetrate further into the subject, and demand what is the intimate action of chloroform on the nerve elements themselves. Claude Bernard has shown us by experiments of rigorous precision, that in the case of sensory nerves this momentary loss of their functions is absolutely analogous to what takes place when the sensory nerves succumb to abstraction of blood; or, if you prefer this statement, that troubles of sensibility manifest themselves at the periphery, while the action of the medicine is exerted on the centre (*i. e.*, the nerve-cells), in accordance with the law laid down by Claude Bernard, "the nervous element loses its properties by the extremity opposite to that where it is affected."

But what is the alteration of the nerve-cell produced by the contact of chloroform conveyed to it by the blood? Here we can only make hypotheses. The most probable is that which Claude Bernard has offered, viz., that chloroform causes an incomplete coagulation of the protoplasmic substance surrounding the cell-nucleus, that this coagulation is temporary, but that, under certain circumstances, it may be final.

The solution of the problem in therapeutics, which I have stated, is not yet complete, for there is another element of the nervous system which is to be taken into account, viz., the great sympathetic, which modifies, in its turn, the circulation, and especially that of the brain, and produces there that anæmia which is such a factor in the anæsthetic sleep, as well as in natural sleep, as Hammond and Durham were the first to show us. The effects, then, of anæsthetics may be partially explained by the action of chloroform on the ganglionic centres of the vaso-motor system.

What I have just said of chloroform, I may almost repeat, word for word, of alcohol. It also is carried by the circulation to the nerve-centres. Like chloroform, it disturbs, more or less, the action of the cerebro-spinal axis, determining at first phenomena of intoxication, then collapsus. Like the former, too, it modifies locally the circulation. So, then, certain substances penetrate, by the circulation, to the nerve-centres, and fix themselves there; as for alcohol, this fact is undeniable, and by direct researches on animals, and even on man, I have determined the presence of alcohol in the brain tissue itself. Other medicinal substances also localize themselves in the brain, and I cannot furnish you a better example than lead; in fact, saturnine encephalopathy is produced by the presence of this metal in the cerebral tissue, as has been proven by chemical analysis. Heckel has even shown that in animals submitted to lead-poisoning, this element, in fixing itself in the cerebral substance, alters the color of it.

So it is now known that certain medicaments, which produce modifications in the functions of the cerebro-spinal axis, act directly on the nerve-cells, and by their presence determine transient or permanent results, which modify the property of those cells; here, then, is a first fact which seems to be sufficiently established.

I must add that it is essential that the nervous ele-

[1] The respiratory centre in the medulla oblongata possesses a considerable resistance to the action of chloroform, but it is paralyzed in part, as the following experiment, performed by Vulpian, shows: In an animal not chloroformed, in which the pneumogastric nerve has been cut, if you electrize the central end of the nerve you determine complete arrest of the respiration; this lasts half or three-quarters of a minute. If you continue the electrization, the respiration resumes its course, and in order to obtain a new arrest of the respiratory movements, you must suspend for a time the electrization, to return to it again. In an animal plunged in the sleep of anæsthesia, electrization of the central end of the pneumogastric arrests respiration more readily than in the first case, and after this suspension the respiratory movements do not, of their own accord, come back again, and the animal, abandoned to itself, dies of respiratory syncope. This shows that the rachidian bulb is not in its normal state, and that the respiratory centre is weakened.—*Vide* Dictionnaire de Thérapeutique, D. Beaumetz, 1882, page 237. TRANS.

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ments be intact, and this is a point to which I desire to call your attention, for it is of capital importance from a therapeutic point of view. We know, in fact, that under the influence of modifications, such as are determined by alcohol or by cerebral derangements, patients acquire a certain immunity from the therapeutic, and even from the toxic action of a great number of medicaments. We can, for instance, give to alcoholic patients, when affected with delirium tremens, or to maniacal patients, immense doses of morphia, atropia, or digitalis, without producing any symptoms of poisoning, although the same doses, in the same individuals, when in health, would speedily produce dangerous, if not fatal, symptoms.[1]

How shall we explain these facts? We can give a physiological explanation, based on a curious experiment of Claude Bernard and Paul Thernard. They etherized hares, then injected anhydrous prussic acid under the skin. Whenever the animal was plunged in the anæsthetic sleep, they could give him quite large doses of prussic acid without producing poisoning, but toxic symptoms appeared as soon as the animal recovered consciousness and sensibility.

This experiment is fundamental, and brings out with great clearness the capital fact, that when a nervous element is influenced or modified by a medicinal agent previously taken, it cannot be easily impressed by any other medicament. This explains the variable susceptibility to medicinal agents which some persons manifest—the tolerance of the nerve-cells for one modifier of function when influenced by another—the cases of mania above referred to, also those of alcoholic poisoning, where morphia in very large doses is borne with impunity. But as the action of the cerebro-spinal axis is in relation with the activity—greater or less—of the circulation, it is apparent that it is quite possible to modify the functions of the nervous system by modifying the circulation through the agency of medicinal substances. This it is that leads me to speak of the action of medicines on the vaso-motors.

Since the discovery of Pourfour du Petit, since more especially the curious experimentation of Claude Bernard, we know that the capillary circulation is dependent on the nervous system. This discovery immediately threw light on the actions of a great number of medicaments, and an attempt was made to divide them into two distinct groups, the one consisting of medicines that act on the vaso-dilators, the other of such as act on the vaso-constrictors.[2]

In the first group (of the vaso-dilators) were placed curare, opium and its alkaloids, eserine, and nitrite of amyl. In the second (or group of the vaso-constrictors)[3] a place was assigned to strychnia, ergot, belladonna, atropia, and the greater part of the poisons of the heart.

Unfortunately it must be admitted that this division is based rather on hypothesis than on any rigorous scientific demonstration of their action; and in order to show you how difficult is the subject, I will take from the two groups two substances, and will tell you what we know that is positive concerning their vaso-motor action. As representing vaso-constrictive medicaments, I will take ergot; as a vaso-dilator medicament, I will take morphia.

It was in 1849 that a Belgian physiologist, Savet, affirmed for the first time that ergot of rye, whose ecbolic action was well known, caused the arteries to contract. John Simon, in England, in 1850, taught the same doctrine, and both maintained that this constrictive action on the arteries was concerned in all the pharmaceutical and toxic properties of the drug.[1] But before these statements could be accepted as fact, they must be demonstrated by experiment, and Holmes, Wernich, Schuller, Vogt, showed in frogs, as well as in higher animals, cats and hares, the constrictive action on the arteries of these animals of ergot of rye and of ergotine.

But how is this action on the unstriped muscle of these arteries effected? Is it a direct effect, or is it brought about by an influence on the constrictor nerves? Here experiments are contradictory. Wernich and Schuller affirm that the contraction takes place when the vessel is deprived of all the nerves which it receives from the great sympathetic; Vogt, on the contrary, affirms that the vaso-constrictive action of ergot results from modifications wrought in the vaso-motor centres. As you perceive, physiology has not given a clear answer to the question, and, as Vulpian well says, we

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[1] According to Vulpian, medicines which act on the vaso-motors are divisible into two groups, as given in the text (*vide supra*). These vaso-motor effects may be produced in various ways. Toxic substances may act on the unstriped muscular fibres directly, or primarily on the nerves, or vaso-motor nerve-centres. By direct examination, the effect of medicinal substances on the circulation has been studied, *i. e.*, by the sight, by the hæmadynamometer, and by the sphygmograph (Bordier's method); then by successive destruction of the vaso-motor nerve filaments, or vaso-motor centres, it has been attempted to limit the action of the substance under experimentation. Nevertheless, despite all the scientific rigor brought into these investigations, only confused and uncertain results have been obtained.—Vulpian, "Leçons sur l'Appareil Vaso-moteur," tome xii. p. 724, 1875. (*Vide* Bordier, Schaller, De Bernel de Pontives, etc.)

[2] I have seen teaspoonful doses of tincture of digitalis given in delirium tremens and in mania without any very perceptible effect. There is the same tolerance of chloral. I have given as much as three drachms (ʒiij) in one night to a patient in delirium tremens, without producing any profound sleep; have seen five grains of morphia by mouth prove futile.—TRANS.

[3] In frogs poisoned by nicotine, Claude Bernard has seen arrest of the circulation in the interdigital membrane, and contraction of the arterioles. Hence he affirmed that nicotine has a vaso-constrictive action. In Vulpian's opinion, this arrest of the circulation is due to disturbance of the functions of the heart. It has been asserted that in animals poisoned by this drug ("nicotinized") the intra-arterial blood pressure is raised. Vulpian maintains, on the contrary, that if you will take the precaution to prevent all convulsive action by curarizing the animal, you will always find the blood pressure lowered, and there will be a marked congestion of the digestive tube, and especially the stomach. Sever the pneumogastrics in the neck, and there is no longer fall of the blood pressure. Heidenhain has shown that nicotine prevents the secretion of the submaxillary gland, without acting on the vaso-motors. From all this, it appears difficult to affirm that nicotine acts specially either on the vaso-motors or muscular fibres, and its action seems to be more complex than has been supposed.—Claude Bernard, "Leçons sur les Substance Toxiqués et Médicamentaires," 1857, p. 402, *et seq.* Heidenhain, Pflüger's Arch., t. v. p. 40–45. Vulpian, *loc. cit.*

[1] Savet, of Belgium, in 1849, and Simon, in 1850, first expressed the opinion that ergot causes the arterioles to contract. Savet attributed to contraction of the arteries all the phenomena which ergot determines (contraction of the uterus, of the bladder, etc.). Simon, on the other hand, affirmed a specific direct action on the unstriped muscular fibre everywhere. Holmes (Thèse de Paris, 1870), has studied experimentally the action of the ergot on the circulation. Injecting ergotine into the tongues of frogs, he has noted arterial constriction lasting twenty-five to thirty-five minutes. This effect was also noticed in the interdigital membrane after section of the sciatic nerve. He concludes that ergot has a direct action on the muscular fibres of the arterial walls.

Wernich, in experiments on hares and cats, has seen certain arterioles of the ear and pia mater contract, and this contraction take place even after section of the sympathetic, which innervates these vessels. Schuller has obtained the same effect in the vessels of the pia mater, after section of the cervical sympathetic.

Vogt, on the other hand, affirms that the active principles of ergot of rye act on the vaso-motor centres.

Vulpian is of opinion that these experiments are not demonstrative, and that the direct action of ergot on the smooth muscular fibre has not yet been substantiated.—Holmes (*loc. cit.*), Vulpian (*loc. cit.*), Wernich (*Virchow's Arch.*, 1872, t. 56, p. 19), Schuller (*Centralblatt*, 1871, No. 51), Vogt (*Berlin. klin. Wochenschrift*, 1872, No. 10), Labadie Lagrave, L'Ergot de Seigle en France, et en Angleterre (*Gaz. Hebdom.*, 1873, p. 249).

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have as yet no decisive test-experiment on either side.

We find the same difficulty, *àpropos*, of the study of morphia. Doubtless, morphia brings about a congestion of the face, causes constriction of the pupil, and seems to produce a relaxation of the unstriped muscular fibres. But how is this action effected? This is a problem not yet solved.

Whatever may be the *modus operandi*, one may nevertheless say, taking his stand on data already acquired, that the group of spasmodic and anti-spasmodic medicaments owes its therapeutic action solely to the effect which these substances produce on the smooth muscular fibres, and that this effect is more likely indirect, being primarily exerted on the vaso-motors. It is, in fact, very difficult to affirm, with all the care that one may take in conducting the experiment, that one has destroyed all the nervous elements which innervate a group of muscles, or the walls of a bloodvessel. Moreover, in sectioning the nerves, the terminal extremities of the nerves still exist, and it is probable, I affirm, that it is by acting on these extremities that the contraction or relaxation of the muscular elements is produced.

But this is not all; medicaments act also on the secretions, and we must recognize the fact that this is one of the most important results that we look for in the administration of remedies; whether it be the kidneys, the salivary glands, or the skin with which we are concerned, we acknowledge the remedial efficacy, in morbid conditions of these organs, of diuretics, sialagogues, and sudorifics.

Till quite recently, it was supposed that certain principles contained in these medicaments, by a direct action on the glandular element itself, promote secretion; to-day, since the discovery of secretory nerves, this theory ought to be abandoned, and the admission made that these medicines act either directly on those nerves, or on the membrane of unification which binds them to the secretory elements.

But in order to show you, gentlemen, on what experimental data is based this new method of regarding secretory medicaments, I shall finish this lecture by briefly reviewing the curious experiments which have been made *àpropos* of the action of jaborandi and atropine in certain salivary glands.

Among these glands is one which lends itself readily to experiment, as far as the nerves which innervate it are concerned—the submaxillary. This gland receives two sets of nerves; one set comes from the lingual branch of the inferior maxillary, and from the chorda tympani; another set comes from the superior cervical ganglion. By destroying the latter, or cutting the former, one may study the influence of these two sets of nerves—whose origin is so different—on the secretion of this gland, for a tube introduced into Wharton's duct enables you justly to estimate the flow of saliva in the curarized animal.

When the chorda tympani is irritated, the circulation in the gland and the glandular secretion are augmented.[1] Heidenhain was the first to show that when an animal is poisoned by atropine, irritation of the chorda tympani produces augmentation of the circulation, but does not provoke the secretion of saliva; the atropine then has acted on the secretory nerves, but it has respected the vaso-motors. And if any one should say that the atropine has directed and limited its action to the secreting cell, whose effect it has destroyed, the reply is that we can restore the secretion of saliva by exciting the branch of the great sympathetic, which fact proves that the glandular parenchyma is not altered in its functions.

In another animal submitted to similar experimentation, but treated by subcutaneous injections of pilocarpine, instead of atropine, an increase in the secretion of saliva was noted. When, moreover, both these alkaloids were introduced, the one after the other, in the same animal, the phenomenon of exaggerated secretion was no longer seen, these two substances being in therapeutic antagonism. What does this experimentation show? It is this—that jaborandi does not determine the salivary secretion, as Gubler thought, by the presence of certain of its principles in the secreting cell itself, for we have seen by the first experiment that atropine does not destroy the properties of the cells, but that there is a special action on certain elements, which it remains for us to designate. What is the anatomical element on which atropine, on which jaborandi acts? Is it the nervous element itself? First of all, we must exclude all action on the nerve-centres or nerve-tubes. We have seen the action of atropine and jaborandi manifested in animals in which had been extirpated both the chorda tympani and the nerves from which it is derived, and the ganglia of the sympathetic; the effect then of these two medicaments must be exerted, if at all, on the peripheral portion of these nerves. But between the extremities of the terminal filaments of the branches of the sympathetic and those of the chorda tympani, from an anatomical point of view, no difference exists, and it is difficult to admit that a medicinal or toxic substance, introduced by the circulation, can leave intact the structure of one set of fibres, while altering the structure of the other.

It is probable, then, that it is not on the extremities of the nerve-fibres[1] that such toxic substances as jaborandi and atropine act, but rather on the "unifying substance," which is interposed between the nerve terminations of the chorda tympani, or sympathetic, on the one hand, and the secreting elements on the other.

What is this "unifying substance?" Here is a great anatomical and physiological problem which is not yet solved, and it is for the future to define it, and to assign to it its part in the process of secretion.

But I ought to assure you, that if the difficulties of these physiological problems augment in proportion as experimental analysis becomes more rigorous, it is none the less true that such researches give scientific

[1] When, after cutting the chorda tympani, you excite the peripheral end of that nerve, all the bloodvessels are seen to dilate, and the salivary secretion augments. Nevertheless, these two effects, the vaso-motor and the secretory, are distinct, for woorari, given in a certain dose, paralyzes the secretory action, without at all modifying the vaso-motor action. The same result is obtained with atropine or cicutine. The experiments of Vulpian, of Heidenhain, and of Joliet, are, in this respect, absolutely demonstrative. There are, then, medicaments which act on the nerves of secretion, without acting on the vaso-constrictors, or vaso-dilators. —Vulpian, "Leçons sur les Substances Toxiques et Médicamenteuses."

[1] Coyne has studied the terminations of the nerves in glands. He has found, under the limiting membrane of the parenchyma, triangular or elongated cells, with multiple prolongations, having all the characters of nerve cells. He has been able to follow the nerve fibres through to the cells, but has not succeeded in finding the connecting substance which binds the cells to the epithelial elements. Pflüger has described very fine nervous filaments terminating in the epithelium itself, but he is the only one who has yet traced these terminations in the epithelium of glands. Rouget disputes Pflüger's assertion that the fibres discovered by him were nervous filaments, for they keep their sheath of myeline to their termination in the gland substance—an exception to the rule.

Hermann, in observations of sweat glands, has seen fine nerve filaments in the limiting membrane of the glands. Caidiat explains the presence of these nerve filaments in this situation by the fact of the existence of a great number of muscular fibres in the parietes of the glands; he thinks that Hermann's nerve filaments are destined to innervate these muscular elements.—Coyne, "De la terminaison des nerfs dans les glandes," (Comptes Rendus de l'Académie des Sciences, 1878). Cardiat, "Traité d'Anatomie Générale," t. ii. p. 153.

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precision to the study of the actions of medicines, and that it is in this way only that experimental therapeutics can progress.

Such are the general considerations that I desired to present to you relative to the nervous system considered from a therapeutic standpoint; they show you the difficulties of the problem and how these researches should be conducted in the future.

ORIGINAL ARTICLES.

NOTES ON THE MANAGEMENT OF RINGWORM OF THE SCALP (TINEA TONSURANS).

BY ARTHUR VAN HARLINGEN, M.D.,

CHIEF OF THE SKIN CLINIC, HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

I HAVE called the following remarks notes on the *management* of ringworm of the scalp, because they deal rather with the application of the remedies used than with the treatment of the disease in the ordinary acceptation of the term.

There is no lack of good and efficient remedies for tinea tonsurans, and the chief reason for disappointment and failure in the use of these remedies lies, I think, in their unintelligent application.

It must be kept in mind that in ringworm of the scalp we have to deal with a subtile and penetrating fungus, which invades the follicles to their lowest recesses, grows with persistent luxuriance, and refuses to yield to any remedy, no matter how active it may be, which is not brought into intimate contact with every minute germ. It is perfectly useless to give the patient a parasiticide lotion or ointment with a vague, general direction to rub it on or into the diseased patches of skin. Though such an application may kill the fungus as it exists on the surface, it can not touch the germs which have penetrated the follicles, and there remain intact and ready to spring into new life as soon as the parasiticide is withdrawn.

To understand the difficulties which must be overcome in order that the parasiticide may be brought into contact with the fungus, it must be remembered that the hair-follicles of the scalp, while they are often as much as ⅜ of an inch in length, are only about $\frac{1}{60}$ of an inch in diameter; in other words, they are little wells nearly twenty times deeper than they are wide. When it is considered that the greater part of this narrow calibre is usually filled by the growing hair-shaft, the attempt to cure an old case of ringworm of the scalp, when the fungus has penetrated to the very bottom of the follicle, by smearing an ointment, or swabbing a wash over the surface, is seen at once to be a vain effort.

Depilation indeed is usually the first proceeding to which attention must be paid in the management of ringworm of the scalp; not the indiscriminate pulling out of all hairs in the neighborhood of the diseased patch, but the extraction of those only which appear to the naked eye, or to the eye aided by a small lens, to be diseased.

The difference in appearance between a healthy hair and one which has been attacked by the ringworm fungus, may usually be easily recognized by the naked eye. In the first place the diseased hair is broken off short with a length of ⅛ to ¼ of an inch. The spores by their multiplication have separated its fibres, and the texture of the hair has been rendered brittle. The broken end is split so as to look like one of those old-fashioned birchen brooms which are used to sweep the streets. The hair-stump itself is enlarged to three or four times the diameter of the healthy hair, and its lustre is diminished, so that it can be singled out from a group of hairs cut to the same length. The color also is usually lighter, and it has a dry lifeless look.

Depilation should be practised systematically, a certain limited area being selected for each operation, and not a few hairs plucked here and there over a large surface. Immediately after depilation the parasiticide is to be applied with the hope of penetrating the still yawning follicles from which the hairs have just been removed.

It must be remembered that, not only does the fungus penetrate the follicles in which it has been lodged, but it tends to spread by being carried about from one part to another of the head in brushing, rubbing, or scratching the scalp, etc. For this reason it is apt to be found at various points, and in examining the scalp in a case where a single characteristic patch has been found care should be taken to go over the whole head with a view of learning whether some incipient and superficial patches may not be found, the timely application to which of a parasiticide may nip the disease in the bud. The patient's head should be firmly held while the hair is turned back in successive rows from front to back, or *vice versa*, so that no points shall remain unexamined. Every diseased patch should of course be made the subject of active treatment, but some parasiticide should also be kept in contact with all parts of the scalp, in order that the floating fungus may have no opportunity to light upon any unprotected spot.

It is too often supposed that treatment need be applied only to the characteristic ashen-gray, slightly raised patches with their goose-flesh-like arrangement of broken stumps, which go to make up the typical picture of ringworm of the scalp. But, as has been pointed out, the fungus is so insidious that it must be looked for, not only here, but in all parts of the scalp, where its presence may be indicated by a few scales like a small round patch of dandruff, with perhaps a single stump of a diseased hair, or even one or two of those black dots in the scalp, which are the stumps broken off even with the surface, and which form the most troublesome points to reach with parasiticides. Now and then an isolated diseased stump may be found among the healthy hairs, and this, unless looked after, may become a focus of disease.

One of the mistakes sometimes made in the management of ringworm is that of having the scalp washed too often. The parasiticide, whatever its nature, should be left undisturbed on the surface. The longer it remains in contact with the skin, the more it is likely to penetrate to the points where its influence is most needed. Once in two weeks is often enough to wash the scalp in an average case.

In order that the remedies may be properly ap-

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plied, the hair must be shaved or at least cut very short. My own custom is to direct that the head be kept closely shaved for a week or so, the remedies being applied regularly during that time, and that the hair be then permitted to grow for a day or two, in order to take an account of progress, and to see what proportion of diseased hairs still remain. Of course, the limited locality where depilation is being practised at any given time must be left unshaven, so that the hairs may grow long enough to permit of their being readily plucked.

It is generally best to apply remedies with a mop or sponge tied to the end of a stick, because the end of the finger is scarcely firm enough to be of service. The scalp, it must be remembered, is not as sensitive as other portions of the body, and will bear with impunity an amount of rough handling which would prove injurious elsewhere. Ointments as well as washes may be applied thus with advantage. I am accustomed to use mops made of old-fashioned candle-wick tied to the end of a stick the size of a crow-quill and five inches in length. These are made for me in quantity, and as they cost next to nothing may be thrown away as used.

Of course the scalp must not be made sore; when this occurs treatment must be suspended and valuable time is lost. There is a great difference in different individuals as to the sensitiveness of the scalp. An application which will agree with one child, and which may be rubbed in most vigorously with entire impunity, will in another by its mere application in the gentlest manner give rise to violent inflammation. In some individuals the scalp is so sensitive, especially when the ringworm has lasted some time and has been much treated, that none but the mildest remedies can be tolerated. It is always well to begin a little cautiously in severe cases or those of long standing, and it is never safe to send a patient away for some days or weeks with a new remedy, the effect of which in the case has never been tested.

(To be concluded.)

PHOTO-MICROGRAPHY BY ORDINARY LAMP-LIGHT.

BY GEORGE A. PIERSOL, M.D.,
OF PHILADELPHIA.

WITH the ever-increasing devotion to microscopical research, the need of ready and accurate means of reproducing what is seen in the instrument is becoming more and more imperative; while for elementary demonstration, or for the illustration of text-books the semi-diagramatic drawings are, probably, to be preferred; yet for original research regarding matters where differences of opinion and interpretation are likely to arise, some method less open to the charge of inaccuracy, from lack of artistic ability, or from a pencil influenced by preconceived ideas, is eminently desirable. To the more or less perfect fulfilment of these requirements photo-micrography has always laid claim.

Regarding the capabilities of photography in this connection nothing need be said, as all are familiar with the beautiful productions of the Army Medical Museum, from the hands of Dr. J. J. Woodward. It is, however, with a view of directing attention to the simplicity and readiness with which photography may be utilized that the present notes are offered.

The introduction and perfecting during the last few years of "dry" plates has greatly simplified what, during the "wet" collodion process, was more or less complicated work, requiring, for the best results, a considerable outlay for apparatus.

Formerly, when the "wet" plates were the only ones employed, some source of powerful illumination, as sun, calcium, magnesium, or electric light, was necessary. Sunlight, probably, is the best illumination for photo-micrography; but to be used with convenience and the best results a heliostat is almost indispensable, together with a suitable southern exposure, and leisure during the busiest hours of the day—necessities which surrounded photo-micrography with obstacles which but the few especially interested cared to overcome.

The introduction of "dry" plates has opened the way for convenient and efficient methods which before were impossible. As is well-known, the "dry" plates are much more rapid and sensitive than the older "wet" ones, being readily impressed by any illumination of ordinary brilliancy, even the ordinary kerosene lamp of the microscopist's table. While the applicability and efficiency of such illumination is becoming well-known, comparatively few seem to have availed themselves of it, notwithstanding the readiness of its application.

Believing that a concise description of the method employed with very satisfactory results may aid those desiring to experiment in this direction, a few hints as to the apparatus and manipulations employed are given, which may be modified to meet individual wants.

The first care in arranging for photo-micrography is a firm and convenient table or base; this is best a well-seasoned board, some six or eight feet long, and from fourteen to sixteen inches wide. This is securely fastened to some support, which may with advantage be a firm table of ordinary size; the board, however, should be raised to a convenient height to avoid uncomfortable stooping while working. About eighteen inches from one end of the base is a convenient position for the microscope, the tube of which should be placed perfectly horizontal, care being taken that a good balance be maintained. The eye-piece of the instrument is best removed.

Owing to the great sensitiveness of the "dry" plates to any white light, it will, ordinarily, be found much more convenient to employ a camera, which must be so adjusted as to be at a proper height and at right angles to the axis of the microscope. As the amplification desirable will probably require the image to be received at some distance from the instrument (from thirty to forty-eight inches), an "extension" between the camera and tube of the microscope is necessary, which can readily be made from a cone of card-board or tin, with the precaution that all joints are light-proof. The tube of the microscope, as well as the extension, should be lined with dead-black paper.

The position of the focusing adjustments is thus removed beyond reach when the operator is closely

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observing the image on the ground-glass of the camera-back; some arrangement, therefore, for operating the fine adjustment from a distance is necessary. A very simple contrivance for this purpose, which has always answered with perfect satisfaction, consists of a piece of thin twine, which passes over the milled head of the fine adjustment (the latter being grooved to receive the cord) down to the edge of the board on either side of the microscope, one end passing through a screw-eye towards the floor, while the other is carried from the instrument by an occasional screw-eye along the further side of the board to any convenient distance, where it passes towards the floor; on either end of the cord are suitable balancing weights—fishing dipsies answer well—when by the slightest movement of the twine the fine adjustment is turned. The arrangement, when properly adjusted, is all that can be desired, by which a one-twelfth or one-fifteenth can readily and delicately be focused, and possesses the advantage over the much more complicated mechanical arrangements of but a nominal cost, and of being out of the way of the operator, and little likely to disturbance by an accidental knock.

A proper illumination forms an essential part of the apparatus. A good kerosene lamp with a flat wick should be used, the flame being turned with the edge towards the microscope, and being on a level with the axis of the stand; between the flame and the stage a large bull's-eye condenser is interposed about five inches in front of the stage, with the plane surface towards the flame, the latter being three or four inches further removed. Care should be taken to have the centre of the condensing lens and flame to correspond to the axis of the instrument.

For low powers, say from three inch to the half inch objective, no further condensation of light is necessary, but with higher powers the addition of an achromatic condenser is of decided advantage, being the most convenient means of obtaining powerful, as well as *graded* illumination. Especial attention should be given to having the light well centred and equally distributed over the field, the intensity being adjusted by the condenser to meet the requirements of the preparation to be photographed.

With an illumination arranged as suggested, the range of objectives which may be employed is, contrary to a seemingly prevalent idea, practically unlimited, as we have photographed with objectives ranging from three inches to one-fifteenth of an inch, giving from twelve to thirteen hundred diameters, with very satisfactory results.

The illumination is sufficient to allow the use of a cell of copper ammonio-sulphate; experience has shown us that the blue-cell is unnecessary with lamplight, as no trouble is found from discrepancy between the foci of the visual and actinic rays, since in the yellow light they are, probably, practically identical. With the two or three inch objective, the image is perfectly in focus, with all blue-cell or glass discarded. Similar conclusions have been taught by the observations of a number of others.

The plates which have seemed the most satisfactory are those known commercially as Eastman's "Rapid." With these the length of exposure will vary, with illumination, lens, and preparation, from three to twelve minutes; with medium powers, four-tenths to one-fifth, about six minutes will usually be satisfactory; with one-twelfth or one-fifteenth, a somewhat longer exposure is necessary.

Probably the greatest difficulty in photo-micrography is in obtaining an accurate focus. In order to conveniently see the image on the ground-glass when stationed at the microscope, a mirror should be placed at the end of the table opposite to the focusing screen, when the image will be conveniently reflected while working at the microscope. On finding the approximate focus, the operator takes his position at the ground-glass, and, by means of the arrangement already suggested, secures the exact focus. For many preparations the ordinary ground-glass answers perfectly; for very delicate structures, however, the plate-holder, with a piece of plain glass occupying the position of the sensitized plate, should be substituted for the ground-glass of the camera-back, when, by the aid of a focusing glass, the accurate adjustment is readily obtained. While by no means essential, yet a large, firm stand, with mechanical and rotating stage, will be found exceedingly convenient for work with the higher powers.

To insure satisfactory results, certain conditions should be fulfilled. Objectives with unquestionable definition are, of course, indispensable; flatness of field and sufficient angle to admit plenty of light being likewise important. The character of the preparation is also a vital condition of success, since not a little of the disappointment from unsatisfactory work is due to the attempted use of specimens totally unfit for photography. When sections, they should be as *thin* as possible, care being taken that they lie flat when mounted; but whatever the form of the tissue, whether section or not, it should be deeply stained and *well differentiated*, the last being especially important.

Regarding the purely photographic manipulations, it is beyond the province of these notes to speak, since efficient assistance may be obtained from many sources. While it is desirable that the plate should be developed soon after the exposure, in order to ascertain its quality, yet printing and finishing, and indeed all manipulations, may be left for the professional photographer. Such, however, being questions for each worker to decide according to circumstances.

While lamp-light by no means replaces sunlight for photo-micrography when much time is devoted to such work, or where the very highest amplifications are required, yet the simple method described offers pleasant and profitable employment for many an evening, and may be made the means of recording much that is interesting and instructive. By lamplight, at a very moderate cost, with the simple additions to the microscope described, any one may have the satisfaction of producing really good work, which, we know from experience, may equal that by the more complicated method by sunlight.

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Were photography more generally utilized for illustration, microscopical science would be the gainer: the favorite diagramatic clearness of our drawings might be lost, but things would be represented more as they really appear.

MURMURS IN THE ABDOMINAL AORTA.

BY DR. EDWARD T. BRUEN,

DEMONSTRATOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA.

WHEN cases are reported it is desirable that they should be accompanied by post-mortem examinations, or, if not, they should claim notice by their rarity. The following does not conform to either of the above standards, but as it represents phases of clinical diagnosis in which serious disease is suggested, its contents may still claim some general interest.

All physicians have probably met with a class of cases in which abdominal murmur is combined with symptoms of abdominal aneurism more or less conclusive, and yet the diagnosis of aneurism would be erroneous. The intricacy of these cases varies in proportion to the character of the combined clinical ensemble.

My case-book records the history of a gentleman, aged thirty, with a family history free from inherited tendencies to pulmonary or arterial disease, and with a personal record positively excluding the possibilities of syphilis or abuse of alcohol. He was apparently suffering from nervous dyspepsia attended with the voiding of urine containing an excess of urea, oxalic and uric acids, and oxalates. Upon examination a murmur was heard midway between the ensiform cartilage and umbilicus. The murmur was peculiar in that it was removed on full inspiration and complete expiration, and, therefore, was audible only during the interval between these acts. The quality of the murmur lacked the hollow echo distinguishing a bruit, but corresponded with the blowing murmur induced by pressure of the stethoscope over the superficial arteries. There was severe pain on assuming the upright posture, accompanied by pulsation in the epigastric region.

These facts rendered the suspicion of abdominal aneurism tangible. The diagnosis became a question of exclusion by probabilities. The age and habits of the patient were adverse to aneurism by an etiological survey. The absence of positive tumor, of transmitted murmur, of thrill, and the want of constancy in the intensity of the murmur, all combined to place the question of aneurism among the remote possibilities of the case.

A close analysis of the prior history of the patient disclosed the fact that some years before he had suffered from an indistinct form of peritonitis complicating typhoid fever. This suggested enlargement of the mesenteric lymphatics as a possible cause of pressure, the excessively violent aortic pulsation being referred to serious vaso-motor disturbance, and presumably the pain was due to the throbbing of the aorta against the vertebra, as happens in aneurism.

Instance second: A young man of twenty-three years of age presented himself to me, complaining of a severe dull pain in his back, a pain more severe when he resumed the sitting posture to write or when walking than when lying down. There were also some sharp darting pains down the limbs. The pain had troubled him for six months before he applied for medical advice. Disease of the spinal chord, caries of the vertebræ, renal or pulmonary disease could be set aside. The examination of the arterial system was also negative, and there was no history of rheumatism in any form. Six months later the pain persisted as at first, although at times it had been decidedly mitigated. On auscultation, just below the ensiform cartilage, a short puff was audible, not unlike a dull systolic cardiac sound. This murmur increased in intensity during expiration; it was not transmitted into the femorals, but it was suggested on auscultation posteriorly over the last dorsal vertebra. There was no thrill, nor could any tumor be felt on abdominal palpation.

From the standpoint of diagnosis, the consideration of the personal history disclosed habits of perfect temperance, and the freedom from specific taint. His youth, and the family history (his father having died of old age, mother having died of phthisis), the local character of the murmur, and the absence of thrill or tumor, all negatived aneurism. Yet that a local lesion existed was clearly probable, and the query arose, could a local atheroma occur from a local inflammation due to strain or injury? Or might such injury have occasioned inflammatory changes in the tissues adjacent to the aorta distinct from the arterial, and yet sufficient to induce pressure upon the aorta, and thus produce a murmur? The patient had been a cricketer, and fond of outdoor exercise, and this rendered the hypothesis of a local injury more plausible. This case may be said to be incomplete, since so far no conclusion has been reached. It is useful, because it shows the shade of difference in the symptomatology between murmur in the abdominal aorta having a possible organic genesis, contrasted with the evidently functional.

The third example presents to us a similar murmur in the aorta in the epigastric region. The patient, a male, aged between thirty and forty, was admitted to the hospital suffering from chronic malaria, with congestion of the abdominal vessels and viscera. No other striking symptoms were noted, and the murmur vanished after a six month's course of treatment.

In example fourth, a murmur occurred in a patient in whom the etiological probabilities, considered with the age (which was over fifty-five years), rendered the diagnosis, by election, a local patch of atheroma.

These cases are representative of a number of a similar character which have come under my notice. Certainly, they establish an important clinical fact, that murmurs in the abdominal aorta are not infrequent, and that they are associated with quite various conditions, often specially obscure. It is preëminently important to make a guarded diagnosis, because very often the symptom is transient,

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or associated with more or less remediable forms of pathological process, distinct from lesion of the aorta. Pain, one of the fundamental symptoms of aneurism, is often a positive element in these fictitious aneurisms.

To unravel these complicated cases in the absence of a recognizable tumor and characteristic murmur, the marked influence of etiological factors which predispose to arterial disease is probably a most useful ally. In 34 cases in Netley barracks, 17 had a distinct, and 5 a probable syphilitic history, 3 of associated syphilis with alcoholism, 2 with well-marked rheumatic diathesis associated with acute manifestations, and only 6 without report as to systemic condition. The same writer states that out of 117 cases, 46.1 per cent. of the cases gave undoubted syphilitic history, 6.8 per cent. a probable history of syphilis, 21.3 per cent. occurred in phthisical subjects, 5.9 per cent. with heart disease, 5.7 per cent. with various diseases, 14.2 per cent. without record as to constitutional state.[1]

Ziemssen states that aneurism is eleven times more frequent in the English army than in civil life. We must, then, admit that the ensemble of aneurism must nucleate a sufficient number of the characteristic symptoms, such as pain, tumor, pressure-symptoms, and characteristic bruit, or thrill, before we can convert the diagnosis of election into the diagnosis of demonstration. In instance third, the murmur was associated with hepatic congestion and venous repletion of the mesenteric circulation. Murmurs in such cases must be distinguished from venous murmurs, due to narrowing of the portal vein by pressure, or disease of its coats. This is readily accomplished by observing that venous murmurs are continuous, and are not synchronous either with the systole or diastole of the heart. It is posssible that in some of these cases enlarged mesenteric glands in the vicinity of the pancreas, or indeed that organ itself, might produce the pressure. The etiology, however, of abdominal murmurs is very obscure, and one must be content to recognize their occurrence, since the absence of an autopsy has frequently prevented ultimate study. The murmurs usually disappear after appropriate alterative and tonic treatment. The case instancing a patch of local atheroma has been cited, because murmurs having this etiology occur, and the pathology has been demonstrated by post-mortem examination.

January 10, 1883.

HOSPITAL NOTES.

CITY HOSPITAL OF EVANSVILLE, INDIANA.

FRACTURED PELVIS.

(Reported by L. D. BROSE, M.D., Ph.D., DEMONSTRATOR OF ANATOMY IN THE EVANSVILLE MEDICAL COLLEGE.)

S. V., German, æt. 58 years, single, fell through a hatchway on the first floor in a furniture factory, striking the cellar floor with his left hip. He was unable either to rise or walk after the fall, and was brought to the city hospital suffering great pain. Here the physician in charge examined him and administered an opiate to alleviate his suffering. The accident happened about eight o'clock in the morning, and I did not see the case until about four o'clock in the afternoon, when the patient presented the following condition: pulse rapid and feeble; surface cold, and the system laboring under shock.

He complained of pain about the left hip; was unable to lift the leg or rotate the limb. There was considerable bruising of the tissues in the region between the great trochanter and the crest of the ilium, pressure here causing acute pain. There was no eversion of the foot, and on rotating and extending the thigh, I failed to elicit crepitus. On measuring from the anterior superior iliac spine to the internal malleolus, and from the upper edge of the great trochanter to the median line of the abdomen, no shortening could be detected either in the shaft or neck of the femur of the injured side. Acute pain was also produced by pressure over the symphysis pubis and on exerting pressure over the two iliac crests, but no distinct crepitus was thus elicited. Crepitus and much pain, both deep-seated in character, were produced by flexing the thigh at right angles with the body and strongly abducting the limb. A catheter had not been passed into the bladder, and on inquiry I learned that he had passed his urine an hour previous, but that the attendant had thrown it away without examination. From the nature of the injury, the seat and character of the pain, and the absence of any shortening or eversion of the thigh, I diagnosed a fracture of the pelvis running into the acetabulum. A broad bandage was applied around the pelvis, sand bags placed along the thigh, and a lotion of lead water and laudanum ordered for the contused region. His evening temperature was 98.2°, pulse still rapid and feeble, but his general condition was comparatively that of comfort. The following morning the abdomen was much distended, very tympanitic, tender on pressure, and the patient complained of pain in the left breast. Auscultation disclosed a localized dry pleuritic friction murmur, and the cardiac apex beat displaced towards the right. There was no increased dulness on percussion, and on inquiry from the patient I learned that several years previous he had had an attack of pleurisy.

A turpentine stupe relieved the pain in the left breast, and a large one over the belly also lessened the abdominal tympanitis. The circulation continuing poor and the extremities cold, a mixture of tr. opii, tr. belladonnæ, and carb. ammoniæ was ordered, together with hot bottles to the feet. The evening temperature was between 99° and 100°, pulse continued feeble; ordered milk punch twice daily, and the turpentine stupe to the belly to be repeated. Examination of the urine by the resident, Dr. Gudgel, disclosed no albumen. Next morning I found the patient much improved, having rested well during the night; tympanitis less, and some return of the appetite. On the fourth day an enema of castor oil and turpentine was administered, which moved the bowels freely. The patient continued to improve, and on the seventh day of his admission, the tongue being heavily coated and the bowels constipated, ordered ol. ricini and syr. rhei aromat., each half an ounce. This produced free evacuation, the tongue cleaning in the course of a few days, while his appetite and general condition improved very much. The swelling over the seat of the injury being now much diminished, the lead water was discontinued, and a simple broad bandage retained around the pelvis.

On the thirteenth day of his injury, Dr. E. Linthicum being in the house during my visit, I asked him to see and examine the case with me, as the diagnosis prior to my taking charge of the case had been that of impacted intracapsular fracture of the femur, and my

[1] Med.-Chirurg. Trans. for 1876.

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own diagnosis had since been questioned. On measurement we detected about a quarter of an inch of shortening in the length of the limb, but no shortening in the neck of the femur. Requesting Dr. Linthicum to place his hands over the great trochanter, I rotated the limb, but only caused the man pain without eliciting distinct crepitus. At the Doctor's request, I exchanged places with him while he rotated the thigh, but I could detect no crepitus, and our examination producing great pain, the patient sitting up in bed saying he could not breathe, we discontinued our manipulation. The seemingly asthmatic attack continuing and the face becoming livid, I gave him a drachm of Hoffman's anodyne. This failed to mitigate his dyspnœa and substernal pain. I next prepared a solution of morphia and atropia, but before I could inject it he asked for the bed-pan, had an evacuation from the bladder and rectum, became pulseless at the wrist, and death ensued in a few minutes, the intellect remaining clear with no signs of palsy up to the last.

Necroscopy.—Extensive old pleuritic adhesions over the left lung, the lower lobe of which was highly emphysematous, exhibiting several large blebs on its anterior surface near the base. The lung tissue was otherwise healthy. Over the right lung there were also adhesions, but of minor extent, and the lung substance itself was normal. Pericardium normal. Heart in diastole softened, but not enlarged. Cavity of the right ventricle contained two small clots, soft in consistency, of dark color, and post mortem in character. Valves normal. Left ventricle normal in size and without valvular lesions. Abdominal cavity free from hemorrhage. Spleen enlarged. Liver and kidneys normal. Dotted over the small intestines were flakes of yellowish lymph. Exarticulation of the hip-joint; neck of femur unfractured, and head of bone normal. Running from the acetabulum upwards to the sacro-iliac junction was a large simple fracture of the ilium, without any displacement of the fragments.

The case is one of great interest from the occurrence of sudden death whilst the patient had been daily improving and gave every promise of a good recovery. During the entire time he was in my charge I noticed that his extremities became cold after the slightest exposure; that the pulse was easily compressed, in fact, that his nutrition was poor and that he had a very weak heart. Part of his treatment consisted in the daily use of hot bottles to the extremities, to keep up their warmth. The cause of his death was most probably due to cardiac failure, arising either from the acute pain experienced whilst we abducted the thigh, or from his suddenly rising in bed and thus overstraining an already weakened heart, or both causes operated together.

The case illustrates an important point in the treatment of such subjects, that we make use of stimulants from the beginning; that we guard against sudden changes in position, such as suddenly assuming the sitting posture after having been in the supine position for a number of days, and that we take especial care how we inflict pain by unnecessary and repeated examinations of the injured parts.

MEDICAL PROGRESS.

CYST OF THE SPLEEN.—A case is reported in the *Deutsche Med. Zeit.* of a man who received an injury from a falling brick in the region of the spleen ten years ago, which caused the patient considerable pain for five or six days. One year before the operation, or nine years after the injury, a tumor about the size of a fist made its appearance in the left lumbar region, increasing in size very slowly at first, but at the end of a year the growth assumed the dimensions of a child's head. The tumor was slightly movable and presented a certain amount of fluctuation. The author made an explorative laparotomy and, when seeing he had a cyst of the spleen to deal with, concluded to make a radical operation. The cyst was punctured and a large quantity (1300 grammes) of straw-colored liquid escaped. The walls of the cyst were very much attenuated, and at a point or two it was adherent to the peritoneum. All the vessels connected with the growth were carefully ligated with catgut in two places, and the tumor was removed. Very little bleeding followed, the pedicle was returned, abdominal wall sewed up and wound treated antiseptically (no drainage). Patient recovered without any untoward symptoms, and was able to walk around in two weeks. Four weeks after the operation patient complained of pain and weakness, and presented a peculiar sallow appearance, but at the expiration of four and one-half months he had recovered sufficiently to follow his occupation. Shortly after the operation (about eight days), the author examined a specimen of the patient's blood, finding an increase of the white blood corpuscles and a diminution of the red. The condition of things gradually changed, as the patient was improving, and at the end of four months blood was perfectly normal. Ten months after the operation patient is healthy, and no sensitiveness over the region of the spleen.

The observations in this case are of great importance to the physiologist. They prove, in the first place, that the spleen can be removed from the animal organism without any special danger; second, the removal of this organ causes a temporary disturbance in the formation and relative proportion of the blood corpuscles; and third, its function is to change the white blood corpuscles to red ones. The observations in this case correspond exactly with the experiments made on animals.—*Cincinnati Lancet and Clinic*, March 10, 1883.

BASILYSIS FOR DYSTOCIA FROM HYPERTROPHIC ELONGATION OF THE CERVIX UTERI.—Three years ago PROF. SIMPSON described an instrument for breaking up the fœtal head, and he has just reported a case in which it was used with success on account of dystocia from cervical elongation. After anæsthetization the uterus was kept fixed by pressure on its fundus with one hand, while the other fixed the head by pressure above the pubes. The vault having been perforated on the side next the anterior wall of the cervix, the point of the basilyst was guided to the anterior part of the base, in front of the sella turcica, and screwed in to the shoulder. When the blades had been separated it was felt that the structures were broken up. To effect more complete comminution the instrument was again applied just behind the sella turcica, and on its withdrawal the base of the skull felt relaxed. No blood escaped during this proceeding, showing that the child was dead, and the maternal structures were not injured. Some brain matter escaped during the operation, and the rest was evacuated by douching. Traction on the head was made by the fingers, support and counter-pressure being applied to the lips of the cervix during its extraction. The head was delivered easily, but difficulty was experienced with the shoulders, the circle of the os fissuring in different directions, especially at the left side, where the parts were somewhat thin. The distention by the shoulders also wounded the left nympha and adjacent portion of the vestibule anteriorly and the right posteriorly. The cervix was well douched with carbolized water, and digital pressure applied to the wound of the left nympha in order to stop the bleeding. The placenta was expelled in about

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twenty minutes, and shortly after some (post-partum) hemorrhage occurred. Ergotin was injected freely into the buttocks. The patient's pulse was now very feeble, and her condition critical, from the loss of blood with her previous weak state. Ether was administered intramuscularly, and stimulants and digitalis by the mouth. Bandages were applied firmly to the legs from below upwards, and combined external and vaginal pressure to the uterus maintained for about two hours.

The patient gradually rallied, and the passages having been again carefully douched with carbolized water, the lacerated surfaces were dusted with iodoform before the patient was put to rest. The child was born at 1.20 P. M., thirteen hours and twenty minutes after commencement of labor; third stage, twenty minutes.—*Edinburgh Med. Journal*, March, 1883.

PROLONGED DIPHTHERIA.—DR. DE GASSICOURT (*Rev. Mens. des Mal. de l'Enfance*, Jan. 1883) contributes a paper with the above title, by which term he does not mean either the chronic or the subacute form of the disease, but he would thus describe a class of cases which (in their early history) have nothing to distinguish them from ordinary cases, but which, instead of terminating either in death or recovery within a period fixed in the paper at a month, continue longer, as evidenced by the "incessant reproduction" of false membranes. In other words, by prolonged diphtheria he means diphtheria "prolonged beyond the ordinary limits. To the question of why such cases should occur, he finds no answer. Attention is drawn to the fact that in the reported cases there was no evidence of systemic poisoning during the period of reproduction of false membranes, and this is explained on the supposition that the membrane is merely a product of the disease, and that in no case does it either primarily or secondarily cause systemic poisoning. Two cases are detailed, in one of which, after an ordinary attack lasting twenty-seven days, the child completely recovered its health, but false membranes continued to form for nineteen days; and, in the other, a hospital interne was compelled to travel for nine months after his convalescence before the formation of false membranes ceased. Several cases are then considered under the designation of croup, but which were, the author states, instances of diphtheria of the air-passages, as evidenced by their clinical history—the occurrence of albuminuria, etc. He holds that cases may be prolonged, 1st, where tracheotomy is unnecessary; 2d, before tracheotomy becomes necessary; and 3d, after its performance. Instances are given where the disease was prolonged from fifty-five to one hundred and fifty-one days. In all such cases the author states that any danger which may arise will be of a mechanical, and never of a toxic, nature.—*Edinburgh Med. Journal*, March, 1882.

NEPHRECTOMY.—At the meeting of the Academy of Medicine in Ireland, held December 8, 1882, MR. STOKES, Secretary of the Surgical Section, on behalf of MR. F. J. O'REILLY, exhibited a kidney, which Mr. O'Reilly had removed by lumbar section from a patient, aged 26, in the Trim Union Infirmary, who suffered from symptoms of disease in the right kidney and pus in her urine, together with a constant desire to pass urine. The quantity passed daily was fairly normal, and the specific gravity ranged from 1015 to 1020. A favorable opinion was thus entertained of the capabilities of the left organ to discharge the increased functions with which it was about to be taxed. The operation was by the vertical lumbar, or postperitoneal method, and was performed antiseptically. The vessels and ureter were secured by a whipcord ligature. The external wound was closed with interrupted sutures, and antiseptic dressing was applied. The patient suffered from vomiting during the late stages of the operation. The gland weighed eight ounces, and an abscess-cavity at its superior extremity contained about two ounces of pus. The vomiting and depression, which manifested themselves during the operation, continued, and the patient sank and died forty hours after the operation. About an ounce of urine was drawn off with the catheter previously to death, and did not contain a trace of pus. The kidney was a specimen of primary tubercular disease. A *post-mortem* examination was not obtained, but the wound was investigated, and found free from blood-clot and perfectly aseptic.—*British Med. Journ.*, January 6, 1883.

THE ACTION OF MUSCARIN.—FRANZ HÖGYES, in a paper on the action of muscarin on the circulatory system, shows that muscarin lowers the functional activity of the central nervous system, and after a short time paralyzes it, whilst it at the same time slowly lowers the excitability of the peripheric nervous system. He demonstrates that the dilatation of the vessels after injection of the muscarin is an immediate consequence of the paralyzing action of this poison on the vasomotor centre. At a later period there appears to be diminution in the excitability of the smooth muscular tissue of the body. Muscarin inhibits the action of the heart, because it lowers the excitability of the automatic nerve centres in the organ, and in fact abolishes it; and with this action it causes a gradual diminution in the excitability of the muscular tissue of the heart itself.—*Lancet*, February 24, 1883.

THE PRODUCTION OF MONSTROSITIES.—The recent studies of M. CAMILLE DARESTE have confirmed his earlier views as to the production of monstrosities. He shows that the eggs may preserve their vitality and develop in a perfectly normal manner even if the temperature of the incubator falls several degrees below the temperature which is usually regarded as essential to normal development. Abnormal deviations in development are much more likely to be produced when the temperature becomes elevated over the normal degree, and when some time is allowed to elapse between the laying and incubation of the egg.—*Revue Scientifique*, February 24, 1883.

EPITHELIUM OF THE CERVIX REMOVED DURING PREGNANCY WITHOUT CAUSING ABORTION.—At the meeting of the Obstetrical Society of London held February 7, 1883, an account of this case was read by DR. GODSON. The patient, aged 35, had suffered for twelve months from yellowor watery fetid discharge, latterly from hemorrhage and occasional pain. Till then she had been healthy. The cervix was enlarged and ulcerated; the uterus was mobile. The cervix was removed by the écraseur four days after the cessation of hemorrhage believed by the patient to be menstrual; no bad symptoms followed. Nine days after the operation a sound was passed into the uterus, and four days after this a fœtus of about eight weeks' development was expelled. The author remarked that he believed the abortion was due to the use of the sound, and not to the operation. He advocated the removal of cancerous growths, if possible, at any stage of pregnancy. His case supported the view that cancer favored the occurrence of pregnancy, the patient not having been pregnant for six years previously. He remarked on the patient's previous good health, the late onset of pain, and the importance of not pulling down the cervix when using the écraseur.—*The Lancet*, Feb. 24, 1883.

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TRANSFERABILITY OF ALOPECIA PREMATURA.—LASSAR and BISHOP (*Monats. f. prakt. Derm.*, July, 1882) relate some experiments which seem to point to the contagious nature of alopecia prematura. A young man of twenty-five, himself healthy and of a family not predisposed to baldness, had become bald over the front part of the head within five or six years. The hair near the bald part was lustreless, and came easily out when pulled, while numerous fine scales were clustered over the surface. The hair and scales which were brushed off were mixed with vaseline to form an ointment, and this applied to the skins of a healthy rabbit and guinea-pig. These, in the course of rather more than three weeks, became bald over the parts on which the ointment had been applied, and an abundant scaliness was produced. The scales and hairs from these animals were likewise made into an ointment, and this caused marked baldness in a rabbit to whose skin it was applied. From it, again, a third was infected, and it became the baldest of all. In the meantime the head of the young man was treated by washing with tar soap, and application of corrosive sublimate lotion, solution of naphtol, and carbolic oil. This was continued eight weeks, when a new and stronger growth in the bald and partially denuded parts was plainly visible. An ointment made from the fallen hairs, now only $\frac{1}{60}$ part in weight than before treatment was begun, when applied to a rabbit, caused no morbid symptoms.—*Edinb. Med. Journ.*, March, 1883.

THE VENOM OF THE COPPERHEAD.—DR. ISAAC OTT draws the following conclusions from an experimental study of this subject:

1. The venom of the copperhead is weaker in toxic activity than that of the rattlesnake.
2. The heart, with both kinds of venom, becomes greatly prostrated, and in rapid deaths is their main cause.
3. The venom of either snake does not affect the sensory nerves.
4. The sensory centres are affected by both venoms.
5. The muscular excitability continues to be little affected at the time of death by the poison of the copperhead.
6. The two venoms greatly resemble each other in physiological activity.
7. The cardiac force, rhythm, and frequency are lowered by both venoms.
8. The arterial tension is greatly lowered by both venoms.
9. The blood, after copperhead poisoning, shows no microscopic changes of its globules, or any difference in its spectrum.—*Virginia Medical Monthly*, February, 1883.

EXTERNAL ŒSOPHAGOTOMY FOR DYSPHAGIA.—H. HADLICH reports the case of a man in whom dysphagia was caused by lordosis of the cervical vertebræ and enlargement of the cricoid cartilage. The œsophagus was opened in the neck, and stitched to the edges of the wound. No disease existed in the walls of the œsophagus. Feeding was carried on through the opening in the neck for a while, when the patient learned to swallow in the normal way, and the fistula into the œsophagus was closed. For a time all went well, but in about six months the dysphagia again appeared, but could be overcome by repeated dilatation. Death finally occurred when away from the hospital. No post-mortem could be obtained.—*Centralb. f. Chirurg.*, October 28, 1882.

BOROGLYCERIDE IN THE TREATMENT OF PURULENT OPHTHALMIA.—MR. HARTRIDGE, of London, has for several weeks tried the effect of boroglyceride in a few cases of purulent ophthalmia which have come under his care at the Central Ophthalmic Hospital. The way in which he has employed it in purulent cases has been to evert the lids, and, after cleaning away all pus and secretion with cotton-wool, to brush the mucous membrane over with a 1 in 10 solution of the boroglyceride, taking care to introduce it well under the upper lid. This has been repeated daily, and in the interval the mother has been instructed to bathe and clean the eyes and lids every hour with a 1 in 40 solution. No other treatment was used, and the cases began to improve at once, being usually well in from eight to ten days. Where one eye only was affected, he has, after brushing over the lids, applied a piece of lint soaked in 1 in 20, covered with a pad of cotton-wool, and bandaged the eye, with the result of preventing the sound eye from becoming attacked. In all the cases the cornea was unimplicated.

Boroglyceride is an antiseptic introduced by Prof. Barff, and has been used considerably in Germany in surgical cases, and also for domestic purposes, the preservation of meats, etc. It is made by the chemical combination of boracic acid and glycerine in certain proportions, whereby a new compound, boroglyceride, is formed.

The following are some of the advantages of this antiseptic: It is readily soluble in cold or hot water; it is odorless, tasteless, and unirritating; a 1 in 10 solution dropped into the eye causes scarcely any smarting; and, according to its introducer, it is innocuous. —*Lancet*, February 17, 1883.

SPECIFIC VULVO-VAGINITIS IN INFANCY.—Simple vulvo-vaginitis is not rare in children, and is most frequent before the fifth year, and then again at the time of puberty. Out of 3,921 girls treated at DR. RICHARD POTT'S (*Jahrbuch für Kinderheilkunde*) clinic, from 1876 to 1882, there were 44 cases of obstinate, long-continued, more or less profuse, purulent or muco-purulent discharge. These cases, which continue so long, and are so severe, the author claims are, almost without exception, specific and contagious. The author emphasizes this point, and was able to demonstrate, in nearly all of his cases, that the mother either had gonorrhœa or syphilis. That the membrane of the vagina is not affected as often as that of the eyes, is explained by its more protected situation and shorter exposure during delivery. In fact, contagion, in most cases, takes place after delivery, from fingers, towels, sleeping in the same bed with parents who have gonorrhœa, or directly from one child to another. These are by far the most frequent methods. In only two of the above cases could direct contagion from the male penis be proved, in both of which the fact was explained by the superstition among the peasantry that connection with a virgin instantaneously cures clap. In six of the forty-four cases, the children had congenital syphilis with marked manifestations. It was found, however, that general treatment was not sufficient to cure the discharge, even though it entirely removed the other manifestations.

The author's method of examination is very thorough, including speculum and microscope, but there is not great difficulty in making the diagnosis.

His treatment, for a long time, has been about what is generally recommended, and has been very unsatisfactory. He now recommends two things. The first is the rupture or complete removal of the hymen, in very obstinate cases. This usually brings about a rapid cure. But lately he has found a remedy which he thinks will make even this unnecessary. It is iodoform. He used it first in powder form, but that being too troublesome, he now uses it in the form of bougies, five to eight cm. long, and as thick as a small lead-

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pencil. These are passed in till the lower end is just within the hymen. No intoxication ever occurred, and the effect is "eclatant." In only two cases has he had to put in more than one bougie.—*American Journal of Obstetrics*, March, 1883.

GASTROSTOMY FOR IMPERMEABLE CARCINOMATOUS STRICTURE OF THE ŒSOPHAGUS.—O. KAPPELER performed gastrostomy on a man sixty-nine years of age, who was almost at the point of death from starvation, on account of stricture of the œsophagus. After opening the peritoneum the stomach was stitched to the edges of the wound, and Lister's dressing applied for four days; union was then firm, and the stomach was opened. No febrile reaction followed the operation, and the patient's general condition greatly improved. Death occurred in four weeks from the appearance of the disease in the lungs.—*Centralb. f. Chirurg.*, October 28, 1882.

THE TREATMENT OF CHOLERA INFANTUM BY KOUMISS.—A. KRASIN (*Aerzt. Nacht. aus St. Petersb.*) in this paper repeats numerous published observations; and, having regard to them and to his own experience, the writer warmly recommends the employment of koumiss in the above disease. In cases of collapse, he uses the ordinary koumiss on account of its great stimulating power, but as a rule he has recourse to the variety which has been allowed to ferment for one day only. *Edinburgh Medical Journal*, March, 1883.

TRI-CHLORATED PHENOL AS A DISINFECTANT IN GANGRENOUS WOUNDS.—DIANIN (*St. Petersb. Med. Woch.*, No. 38, 1882) states that the compound which he describes under the above name is made by mixing carbolic acid and chloride of lime. He summarizes its properties and clinical uses as follows:

1. Tri-chlorated phenol is twenty-five times more powerful as a disinfectant than carbolic acid.
2. Even very small quantities prevent fermentation entirely.
3. It is a very powerful antiseptic—more powerful, indeed, than any of those in common use at present, such as the permanganates, solutions of chloride of calcium, carbolic acid, thymol, salicylic acid, and boracic acid.
4. It is not only a powerful disinfectant, but it destroys evil odors as well; the peculiar odor of the compound itself can be masked by mixing it with oil of lavender (five drops to the grain).
5. When applied in substance to a wound or ulcer, it is slightly irritating, but the solution has no irritating properties.
6. It is undoubtedly useful in the treatment of soft chancres, and in diphtheria.
7. The salts of tri-chlorated phenol possess the same disinfectant properties that the phenol itself does, and its soda salt is free from odor.
8. The lime salt of tri-chlorated phenol is cheaper than carbolic acid.—*Virginia Medical Monthly*, February, 1883.

THE AGE OF PUBERTY IN WOMEN IN FINLAND.—From the histories of 3,500 women in Helsingfors, DR. G. HEINRICIUS states that the average age at which menstruation commences is 15 years 9 months and 25 days.—*Centralb. f. Gynäkol.*, February 3, 1883.

IODOFORM IN DIABETES MELLITUS.—PROF. BOZZOLO (*Gazetta degli Ospitali*, Feb. 4, 1883), following up Moleschott's researches, has tested the action of iodoform in the treatment of diabetes, and with good results. He has given as much as thirty grains daily. In one slight case glycosuria was almost completely suspended; in a very severe case the quantity of sugar was reduced; in both patients diminution in the amount of urine was noted. Balp and Negro, investigating the subject in Bozzolo's clinique, have come to the conclusion that the administration of iodoform in diabetes, in doses of from fifteen to thirty grains, diminishes the amount of urine and the elimination of sugar, the number of red globules and of hæmoglobin, and likewise reduces the arterial tension.—*Lancet*, February 17, 1883.

GASTROSTOMY FOR CARCINOMA OF THE CARDIA.—E. ROCHELT reports the case of a man aged 70 years, who had for a year and a half suffered from difficulty in swallowing, and in whom finally it became impossible even to swallow liquids. A gastrostomy was therefore performed through an incision five centimetres long, parallel to the lower border of the ribs. The stomach, which was very much contracted, was drawn through this opening, incised, and then stitched to the edges of the wound with thirty-five catgut sutures. Death occurred three days after the operation, from weakness. It should be stated that for five days before the operation the patient was unable to swallow liquids. No autopsy was permitted.—*Centralb. f. Chirurg.*, October 28, 1882.

AN IMPROVED METHOD OF CIRCUMCISION FOR CONGENITAL PHIMOSIS.—DR. NEIL MACLEOD recently operated on a child of two years in whom the orifice of the prepuce scarcely admitted the point of a probe, but by dilating this orifice forcibly with "sinus forceps," and the addition of a few tiny snips with scissors round the margin of the orifice thus dilated, the foreskin could be drawn back until the point of the glans showed itself. Further retraction was prevented by the adhesions referred to, but these were easily broken down by means of a probe passed between the prepuce and the glans, and this done until the corona glandis was exposed in its whole extent. The prepuce was next replaced forwards, and the amount to be cut off was marked by a clip arrangement made by tying two ordinary directors, groove to groove, at one end and slipping the prepuce into the clip formed by the untied ends. Three carbolized silk threads were then passed through the prepuce at equal intervals close to the clip on its proximal side, the glans being guarded as the needle was passed, and each thread being of sufficient length to form *two* sutures. The prepuce in front of the clip was then cut close off, the clip separated, the penis released, vessels twisted, the threads fished up with a blunt hook from the now enlarged preputial slit, cut and then tied on each side. The orifice in the inner or mucous layer of the prepuce can then be slit with scissors down to the corona, but this is unnecessary if the clip is put on so that the line of section runs in the direction from the corona to the orifice of the urethra.

The surface of the glans being anointed with vaseline, a plug of absorbent cotton dipped in one to twenty solution of boroglyceride made an excellent dressing, and was kept applied by a bandage passed round the abdomen, knotted behind, and the two ends brought forward between the legs over a piece of light macintosh or oiled silk, the bandage ends diverging so as to include the genitals, then converging and being looped through the bandage crossing the abdomen. The absorbent pad was changed every time that urine was passed. Healing took place by first intention, and not a trace of odor was detected from first to last. Carbolized catgut sutures would have been better than silk, as they do not need to be removed.—*Edinburgh Med. Journal*, March, 1883.

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THE SYMPTOMATOLOGY OF PERICARDITIS.—This paper by ROSENBACH (*Deutsche Med. Wochen.*, Nos. 44–46, 1882), is founded on a consideration of five cases of pericarditis, in all of which, besides friction sounds at the base, there was a murmur at the apex apparently of mitral origin. In the first two cases mitral insufficiency was diagnosed, but was not found on post-mortem examination. The succeeding cases were then more carefully studied. The grounds for considering that in none of them was there insufficiency were, that one came to the post-mortem table, and that in the other two the murmur gradually became fainter and ultimately vanished as the pericarditis improved, while no symptoms of valve lesion showed themselves. In character the murmur in those cases was long and very distinct; the first part of it was blowing, and it invariably ended in a whistle. The heart sounds were distinctly audible. Usually the point of maximum intensity was outside the apex beat, and the line of propagation more marked towards the axilla than towards the base of the heart. Pressure on the intercostal space, where it was best heard, caused no alteration in contrast with endocardial murmurs, which, as a rule, become weaker on firm pressure being applied. In one case the murmur disappeared when the patient lay on the right side. The writer suggests that the presence of this murmur may prove useful in diagnosing between pericarditis and pericardial pleurisy, and also that it may account for some of those cases in adults where a systolic apex murmur exists without any other indication of valvular disease.—*Edinburgh Med. Journal*, March, 1883.

PERCHLORIDE OF IRON IN SKIN DISEASE.—DR. CARSARINI (*Rev. Clin. di Bologna*) gives the following results:

1. Perchloride of iron is a most efficacious remedy in purpura hæmorrhagica.
2. In the chloro-anæmia accompanying certain skin diseases—as rupia, eczema, impetigo, etc.
3. Its external use is very favorable in scrofulous and syphilitic ulcers.
4. Squamous affections are markedly modified by applications of a liniment of perchloride of iron.
5. It may be used as a lotion, dissolved in two or three parts of water, or as an ointment—one, two, or three grains of perchloride of iron to thirty grains of vaseline [cosmoline] or lard. The author has used it in psoriasis, in the form of a pomade—ten grains of iron, thirty grains of lard or glycerine.—*Virginia Med. Monthly*, February, 1883.

THE RELATIONS BETWEEN THE TIMES OF OVULATION, FECUNDATION, AND COPULATION.—PROF. PANUM reports a case which seems to prove that the human spermatazoa may preserve their vitality in the genital tract of the female for as long a time as three weeks. A woman, aged 43 years, menstruated from April 3d to 5th, had connection with her husband on April 10th, and did not menstruate or copulate again until June 8th, when a slight hemorrhage occurred, followed by abortion on June 10th: the fœtus was perfectly fresh, and is stated by Prof. Panum to have been from four and a half to five weeks old.—*Nordiskt Med. Arkiv*, 1882, Bb. xiv. m. 26.

A NEW FORM OF POSTERIOR LUXATION OF THE SHOULDER.—F. BOTTEY reports the case of a woman, aged 78 years, who fell and dislocated her right shoulder. The head of the humerus could not be detected, either under the acromion, or in the infraspinous fossa, but was found two fingers' breadth below the acromion, behind the outer border of the scapula, lying in the wall of the axilla, so that a deep depression was formed between the head of the bone and the acromion. The author describes this variety of luxation as downwards and inwards, or retro-axillary. It is also worthy of note, that the arm was about half an inch shortened, that it did not stand off from the body, and that it was in a position of moderate supination with the elbow directed forwards. Reduction was readily accomplished by direct pressure on the head of the humerus.—*Centralb. f. Chirurg.*, Jan. 6, 1883.

CHALAZION.—Those foreign bodies which accumulate in the orifices of the Meibomian ducts must be removed either by skilfully pressing them out through the excretory orifices or by laying open the duct and removing them. Saline aperients and a course of the iodide of iron with occasional doses of quinine, usually put an end to the disposition to the formation of these bodies. A good plan is to dilute ten minims of strong commercial acetic acid with one ounce of distilled water, and apply to the closed lids by saturating small pieces of sheet lint and laying them over the lids. These applications may be kept up for an hour at a time every day until perceptible relief is manifest, when the duration of the treatment may be diminished gradually every day until it is no longer demanded. This is an especially efficacious method of dealing with the calcareous or chalky degeneration of accumulated Meibomian matters.—*Medical Herald*, March, 1883.

TANNATE OF CANNABINE.—By distillation with water Indian hemp yields an ethereal oil consisting of cannabine and cannabine hydrate. It is a golden-yellow liquid with a disagreeable odor and taste, and very poisonous. A small quantity when subcutaneously injected causes very great local irritation, and produces an inflammatory swelling similar to that of an immense abscess, the swelling being accompanied by a high degree of fever. The hydrate of cannabine is moreover easily decomposed and is therefore unfit for use in medicine. When combined with tannin it forms a stable compound which does not appear to possess any poisonous properties, but when given internally acts as an excellent hypnotic.

Dr. Fronmueller, of Fürth, has recently described in the *Zeitschrift fur Rati. Prackt. Aerste*, 1882, p. 257, the results obtained from its use in the treatment of various diseases. He finds that it possesses the advantage over extract of Indian hemp of not passing through the intestines without being absorbed. He considers that it is also preferable to the extract on account of its more equal strength. He has remarked that the extract of Indian hemp now met with in commerce is much stronger than it used to be. Thirty years ago he found eight grains were required as a dose; twenty years ago four grains proved effectual, but two grains are now usually sufficient.

Dr. Fronmueller experimented with the tannate on 73 patients, 21 of whom were men and 42 women, and most of them had previously been tried with opiates, or with a subcutaneous injection of morphia. The doses given were usually 0.1 to 0.3 gramme, but in cases of maniacal insomnia as much as 1½ gramme was given. In no case was vomiting or constipation produced. It appeared to be especially useful in cases in which opium caused excitement, or in which it was desirable that an hypnotic should not cause constipation. Only in exceptional cases was any sign of intoxication produced.

A small quantity of alkali renders the tannate soluble in water.—*Midland Medical Miscellany*, February, 1883.

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SATURDAY, MARCH 17, 1883.

LEGAL PROTECTION OF THE INSANE.

THE time is ripe for legislation as to the insane. Some time since we commented on the utterly insufficient safeguards as to commitment of the alleged insane. We do not believe, as we have plainly said, that the Rev. Mr. Newton's views are correct. Few, very few of the sane, are ever confined in insane hospitals. To picture the horrors going on "behind the bars" will do for sensational novelists and sensational preachers, but the pictures are over-wrought, and rarely true. Yet we all want to make sure that they shall *never* be true. And further, if the lunatic becomes of sound mind, we want to be certain that liberty shall go hand-in-hand with restored mental capacity. Further than this the public perhaps do not go, but the profession do. They desire that the insane shall have thorough scientific investigation and treatment, and that post-mortem examinations and pathological studies shall add constantly to the sum total of our knowledge of psychiatry.

We are led to these reflections especially by a perusal of the report of the commission lately appointed by the Governor of Pennsylvania to investigate the existing lunacy laws, and to suggest improvements in them. Among the eminent gentlemen of the commission are such well-known medical men as Drs. S. Weir Mitchell, J. A. Reed, and J. T. Rothrock, names which in themselves are a guarantee that the bill which they propose is, in general outline at least, wise and proper. This bill is now before the Legislature, and we hope most earnestly that it will pass, with some amendments which we shall suggest, and which we regard as important.

It provides for a Lunacy Committee connected with the State Board of Charities, of which one member shall be a physician, and one a lawyer, each of at least ten years' practice. This Committee shall issue licenses to all hospitals for the insane, whether public or private, and with the Attorney-General and the Chief-Justice of the Supreme Court, make general regulations for their conduct. They shall appoint Boards of Visitors, of which women may be members, who with the Committee shall constantly inspect and investigate all such institutions, and at frequent stated intervals examine into the condition of the patients. After due notice to the hospital authorities and to the persons committing any alleged lunatic, they may discharge any such whom they believe to be improperly detained in custody. The physicians upon whose affidavit any person is so committed, whether to public or private insane hospitals, may not be graduates of yesterday, but must be practitioners of at least five years' standing, not related by blood or marriage to the lunatic, nor connected with the hospital to which he is to be committed. Correspondence is not only to be inviolate, but is to be stamped and forwarded daily, and any desired communication is to be written at dictation and forwarded, and any person whom the lunatic may desire to see is to be sent for. Case-books are to be kept for recording each case in proper detail. The criminal insane are also properly to be cared for.

It is also suggested, though not included in the bill, that the chronic and incurable insane shall be simply and cheaply cared for separately from those requiring active remedial measures, in economical small detached buildings connected with the larger hospitals; that convalescent wards be established to separate those returning to reason from the seriously insane; that employment by farm labor, teaching each other, and other modes of occupation shall be provided; and that restraint be but sparingly employed, if at all.

Our readers will see that this is a most excellent bill, and far in advance of our present imperfect and inadequate laws.

The objectionable features as we look at them are not many, and, in general, are of minor importance. In guarding the rights of the insane we must be careful not to trench upon the rights of their proper and necessary custodians. That provision which makes the medical attendant responsible for costs in cases of habeas corpus, unless the judge shall certify that there was sufficient ground to warrant the detention, is certainly objectionable. Insanity is a disease from which recovery is slow, and the exact period when reason is restored and competency to act for one's self returns, can only be fixed

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with difficulty, and often after weeks of careful observation and repeated tests. To leave this question to the decision of a judge, a non-medical man, and perhaps prejudiced against the respondent on general grounds is unwise. If it must be so left, it should be put negatively, and more strongly, that he should certify that there was "clearly *no* sufficient ground for the detention."

Moreover, to empower a Committee of five, of whom only one is a medical man, to discharge any alleged lunatic is perilous. They should only do so on a favorable report from a board of competent alienists, whom they should be authorized to appoint for the investigation of every doubtful case.

Again, the medical officer is required to enter his opinion, *i. e.*, make a diagnosis, in his case-book, within twenty-four hours after the patient's admission. Surely a week would be none too long a time in many of the complicated cases. Sometimes they require even a much longer time and intimate study to furnish sufficient data for an exact diagnosis which may at any moment be made the subject of a legal inquisition. Snap diagnoses are most of all out of place here.

The family or other physician designated by the friends is allowed to prescribe for the patient for all other ailments than insanity—a dangerous privilege, involving many a possible conflict. That he should always be allowed to visit the patient and investigate his condition, is evidently just and right; but not to treat him. Nay, we would go further; with Clark Bell, we would give the lunatic or his friends the right at their own cost to have his mental condition investigated at any time by experts unconnected with the hospital.

One very good provision of the bill is that persons may sign away their liberty, and voluntarily enter an insane hospital and be kept under restraint. Many cases of drunkards and opium eaters could thus be satisfactorily treated. But the time allowed by the bill—seven days, with privilege of repeated renewals for a like period—is too short. Thirty days should be fixed as a maximum. Less than that will do but little good.

Finally, in the matter of correspondence there ought to be some surveillance, lest serious evil be done. Suppose that a young lady while insane writes an indecent letter, it may be to an indiscreet friend or to an enemy. The bill allows no discretion. The letter must be sent. After her recovery shall that letter ever stare her in the face, and compromise her good name? and shall the sane be daily annoyed by receiving voluminous and disturbing epistles? No letter should ever be retained or destroyed lest, under the guise of protection, the patient be wronged, but let the bill be amended after the English law. By it every letter must be forwarded to the person addressed, unless the Superintendent deems it an improper communication. If so, he endorses his opinion on the letter and it is forwarded to the Commissioners of Lunacy, who dispose of it properly.

CLIMATE IN THE TREATMENT OF CHRONIC ALBUMINURIA.

IN reply to the queries of our correspondent as to the relative advantages of a warm and dry climate, as compared with a warm and moist one, in the treatment of chronic albuminuria, we would state that the chief advantage of the former lies in the fact that in such a climate the surface of the body is less apt to be bathed with moisture than in the latter; consequently there is less danger from exposure to draughts of air, which always operate more seriously in chilling the body of which the surface is moist than that which is dry. It is well known that exhalation from the skin is greater in a dry atmosphere than in a moist one, although it is less apparent. In the latter, the perspiration becomes more sensible because its evaporation is less rapid. For these reasons we prefer a warm and dry to a warm and moist climate; although the latter is, of course, to be preferred to a cold climate.

It is of advantage, also, if such a climate include a section of country in which aperient mineral waters are natural. Hence it is, that southern Germany is so suitable, the waters of Marienbad, Franzenbad, Carlsbad, and Püllna fulfilling this indication. All of these places are in Bohemia, and within a short distance of Prague. Marienbad, beautifully situated two thousand feet above the level of the sea, probably fulfils the requirements best of all. In this country we know of no places which afford both of these advantages; but of warm and dry climates, that of southern California (Santa Barbara and Monterey), and the west or Gulf coast of Florida are recommended. For warm climates, regardless of dryness, the places of usual resort in Florida and the Gulf States generally, fulfil the indications. Mobile, Alabama, in consequence of the beauty of its situation, as well as several hamlets in its vicinity, and San Antonia, Texas, may be mentioned, as well as Aiken, South Carolina, and Augusta and Thomasville, Georgia. Nor should Bermuda be omitted, for although not in our own country, it is quite accessible, and its climate scarcely surpassed.

Our attention has recently been called to the climate of Sabinas Hidalgo, in the State of Nuevo Leon, in Mexico, one hundred and twenty miles from Laredo Texas, as peculiarly dry and equable. It is said to be easily reached by trains with sleeping cars from St. Louis *via* San Antonio to Laredo

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and the Mexican National Railway. Doubtless the recently established railway communication with Mexico will open to us numerous other localities in which the elements of a dry and warm climate are furnished.

LATHYRISMUS.

As this term may be new to our readers, it is, probably, desirable to enter into some explanatory details. *Lathyrus* is a genus of leguminous plants, and *lathyrismus* is a condition of the system induced by the consumption of a bread composed, in part, of the flour of *Lathyrus cicera* (everlasting pea). As ergotism results from the long-continued consumption of ergotized rye, so lathyrismus is produced by the persistent use of a bread composed in part of a flour of lathyrus. Quite independently of its economic aspect, the use of a flour producing such effects, has an importance determined by the character of the attendant phenomena.

In 1873, lathyrismus was reported on by Prof. Cantani, after an investigation made of the disease as it appears in certain parts of Italy. It is not limited to Italy, however, since Bourlier, in 1882, described, in a clinical lecture, the same malady as it appeared in Algiers. Last year, also, Dr. Giorgieri, of Parma, gave an account of two new cases which had occurred under his observation. The accounts thus far published agree in the character of the nervous disturbances produced by this substance. The effects of lathyrus, or the condition called *lathyrismus*, correspond closely to the symptoms belonging to antero-lateral sclerosis. The same gait; the same spastic rigidity of the muscles; and the accompanying nervous disturbances characteristic of this disease, are reproduced in the affection caused by lathyrus. These results may be due to the presence of an alkaloid in lathyrus, or they may be the product of changes effected in the intestinal tube. The former view has no novelty, but the latter opens up a wide range of speculation, and is suggestive both from the physiological and from the chemical side. As from amygdalin and emulsin, both without toxic action, hydrocyanic acid, the most powerful of poisons is produced, so it is possible, under conditions not now comprehended, for other innocuous agents to become the means of generating morbific principles. In the acute infectious diseases, alkaloidal substances are formed in the intestinal canal, and in dead bodies ptomaines are elaborated. It may be, that under some circumstances, articles of food, in themselves harmless, become the agencies for the formation of disease-producing materials. In the search for an explanation of morbid actions occurring in the nervous system, such agencies should have due recognition, in the absence of more specific causes.

TEMPERATURE OF THE LIMB AFTER NERVE-STRETCHING.

M. REDARD has ascertained, by the use of a thermo-electric apparatus, that in animals after elongation of the sciatic, the temperature of the limb operated on notably declines, and this reduction persists for two or three months. He also observed that the temperature on the sound side falls, but to a less extent and for a shorter time. Several conclusions may be deduced from these observations, if they are true as stated. M. Redard does not allude to any experiments of control. As a marked reduction of temperature takes place in certain animals—rabbits notably—by mere confinement and arrest of all muscular action, we need to know in respect to these experiments, what were the conditions of the animal during and subsequent to them, and whether any control observations were made?

If it be clearly established that by the stretching of a nerve such wide-spread effects follow, this operation can no longer be regarded as local. If, when the sciatic is stretched, the temperature of corresponding areas on the opposite side is distinctly affected, we cannot avoid the conclusion that the results of nerve-stretching include an impression on the trophic centres. We have in this result, then, an explanation of the influence exerted on locomotor ataxia by the operation of pulling on a sciatic nerve.

If Redard's experiment be supported by subsequent experience, Voit's opinion that the effects of nerve-stretching are local in result, will no longer be tenable, but the opposite view must then be maintained, that nerve-stretching affects the central nervous system.

Another conclusion to which these experiments conducts us is, that heat production is not wholly a chemical process, but is under the control of the nervous system. It would be absurd to state this as a novel view; nevertheless every fact conclusively showing this effect of nervous influence has importance. In respect to this, as the other point above discussed, we need to know how far Redard's observations were suitably controlled. Temperature is so decidedly a result of physiological activity of muscular tissue, that when it is affirmed that nerve-stretching affects the body-heat, we wish to know how far other conditions may have interfered in the results in this direction also.

VENTILATION OF SEWERS.

M. WURTZ, of Paris, has recently made a series of analytical tests with the object of determining the effects produced by the free admission of air into sewers, or, in other words, by thorough ventila-

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tion. The results of these experiments are important, inasmuch as they reveal the fact that the free circulation of air in sewers acts beneficially, not only by diluting and dispersing sewer gases, but also by destroying them chemically.

Mr. Eassie has described the manner in which these changes take place in the sewers, as demonstrated by M. Wurtz. He says that when the motion of the waters renews the surfaces, bringing them incessantly in contact with oxygen, when there is a free current of air in the sewers, the sulphuretted hydrogen becomes readily oxidized, and inodorous, non-volatile sulphates of ammonia are formed. This reaction is rendered still more energetic by moisture, which is always present in the air of sewers and is deposited by the condensation of steam against the brickwork and the walls of the water-mains, as well as of all the other pipes which are placed inside the Paris sewers. These large humid surfaces hold in a state of solution such portions of the highly soluble gases as may not have undergone a chemical change, and thereby prevent their expulsion into the outer air. On the other hand, however, when the ingress of air into the sewers was stopped; when the water, on becoming stagnant, discontinued the process of multiplying its surfaces of contact with the oxygen; not only did the sulphuretted hydrogen cease taking up oxygen to transform itself into sulphates, but the sulphates themselves, which had previously been formed, would be resolved by the organic matter in course of decomposition. This organic matter, depriving the sulphates of their oxygen, would reduce them to sulphites or sulphuretted hydrogen, and then would follow a black settlement, an evolution of bubbles, and layers of slimy froth.

As to the effect of free ventilation upon the minute morbific organisms which are supposed to infest sewer-air, and which all efforts have thus far failed to isolate, little can be said from the standpoint of experimental knowledge: but it seems reasonable to believe that these subtle organic elements, as well as the gaseous constituents of sewer-air, are oxidized in part and dispersed by the free admission of atmospheric air; and that there is less chance for their development, concentration, and transportation into the apartments of our dwellings, through the channels of sewer connections, under the conditions of free ventilation above mentioned, than when the sewers are trapped and hermetically sealed, and direct communication with the outer air is, in this manner, prevented.

THE RIGHT TO MAKE AUTOPSIES IN HOSPITALS.

LAST year a case was decided in England which is of special interest to hospital staffs, as it involved the question of the right of a doctor to make an autopsy. A post-mortem examination had been made on the body of a child dying in hospital, but no previous communication was made to the relatives, nor was their consent asked or obtained. The medical man was charged with improper mutilation of the body. The magistrate, after a week's deliberation, ruled that the Anatomy Act did not apply, and that the surgeon would not be liable to indictment unless it could be shown that the examination had been conducted in such a way as to offer an indignity to the body.

We are not aware that a legal decision has been given in any similar case in this country. It is, however, such an important point, especially in hospitals, that we should be glad to know that our American courts held the same view as the English. Gratuitous services, often very prolonged and requiring great skill, are but poorly requited when the medical man is allowed at least to learn all he can from such a case. Yet we have known the right to be often denied, and hospital authorities are so afraid of criticism, that they not seldom join with the relatives in refusing to allow such an examination.

COLLEGE GYMNASIUMS.

No one who has visited the magnificent gymnasium of Harvard, will hesitate to listen to anything that Dr. D. A. Sargent, its director, has to say as to physical education in colleges; and no one will rise from reading his article in the February number of the *North American Review*, without approval of his views, founded, as they are, on reason and common sense.

Some facts that he gives surprise us. The maximum of time for physical education required in the best of our colleges is but four half hours a week, and that for only a small part of the year. At Harvard, Princeton, Yale, and Cornell, less than five per cent. of the students are rowing men. Not over ten per cent. of college students pay any attention to physical education, and less than six per cent. do it systematically. That their development is lop-sided is no wonder, the athletes running chiefly to muscle, and the scholars to mind. Each alike forgets that a symmetrical development of both is necessary to make the complete man, *totus et teres*, if not also *rotundus*. The remedy Dr. Sargent proposes is simple, sensible, and efficient. It is first, a good gymnasium; second, that physical exercise shall be a required study throughout the course; and thirdly, that there be an instructor, who ought to be a college graduate, a gymnast, and a doctor. He should have competent authority in his department, adapt the exercise, both in kind and degree, to the individual student, and keep systematic records of the progress of each

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student. Those who know the value of the "Sargent System" will appreciate what immense service such a course would do to the physically neglected young men in our colleges. We commend the paper to the thoughtful consideration of college authorities, with the hope that its suggestions may be adopted, not only in men's colleges, but in women's, in which it is needed even more.

THE NEW ANATOMY ACT.

THE new Anatomy Act has passed the Pennsylvania State Senate, and has gone to the House with two seriously damaging amendments.

The first is that, in addition to relatives, "any person" may claim the body for interment. This is a direct encouragement to "body-snatching." It is clear that medical schools *must* have subjects for dissection, or else close their doors and let the education of physicians, so far as they are concerned, cease. Under this amendment what is to hinder "any person" from claiming *every* dead pauper or criminal, ostensibly for interment, but really for the use of the medical schools? What is to hinder them from effecting a pretended or a real burial on private property, to be followed by a disinterment and sale —a sale always guarded under the euphemism that the charge, exorbitant though it be, is only for "transportation"! And again, what is to be done if two or three such persons claim the same body?

The other amendment very properly provides that the medical men of each county shall have prior right to the unclaimed dead of their own county, but adds that the bodies shall be held subject to this claim for a period of *ten days*. This completely defeats the objects of the bill so far as it is intended to relieve the pressing needs of the medical schools of the State. To carry out this clause would necessitate each almshouse, morgue, and prison to provide means for their preservation from decomposition — a practical impossibility. Even in winter, unless so preserved, every body would decompose in less than ten days, and in summer two or three would be enough to render them useless.

We hope that the physicians throughout the State, recognizing the unreasonableness of these amendments, will at once use their personal influence to secure their defeat in the House. The medical schools of the State, while desirous of increasing their own facilities for teaching, are also anxious, as the original bill shows, *to aid the profession throughout the State* in securing material for practical study in anatomy and surgery, a privilege the present law denies to them. In return, a hearty support should be rendered to the just claims of the medical schools of the State—a support which we have no doubt will be cordially given, now that the provisions of the bill are properly understood.

REVIEWS.

A SYSTEM OF HUMAN ANATOMY, INCLUDING ITS MEDICAL AND SURGICAL RELATIONS. By HARRISON ALLEN, M.D. SECTION III.—MUSCLES AND FASCIÆ. 4to. pp. 243 to 334. Philadelphia: H. C. Lea's Son & Co., 1883.

THIS admirable work goes on steadily to completion. The praiseworthy features we have already pointed out in our notice of Sections I. and II., are as noticeable in this. The anatomical descriptions are, in general, models of brief but sufficient statements. Both student and practitioner will find the text free from the elaborate and minute descriptions which, while important and proper in a descriptive anatomy, properly so called, would be out of place in a work intended to deal so largely with the clinical relations of anatomical facts. The literature of the profession has been thoroughly searched for cases illustrative of the applications of anatomy to medicine. We find perhaps fewer references to comparative anatomy than the previous well-known studies of the author would lead us to expect, but those that are introduced are to the point.

Having expressed heartily our high opinion of the work, we beg also to submit a few points of dissent, and to indicate some needful corrections. The plates are, in general, improvements over those of the previous sections, but have a certain rawness or harshness about them which we regret, and they are not wholly free from errors. Thus pl. xliii. has the lev. ang. *oris* as lev. ang. *superioris*. Pl. xlviii. has the extensor *indicus*. In neither this nor the preceding plate is there any good representation of the flexor sublimis digitorum, and in no plate a satisfactory one of the palmar fascia. In pl. xliii. and in the systematic list of the oral muscles appears the lev. lab. infer., as well as the mentalis, but in the text no description is given of the former, and in the plates the latter is nowhere shown. On p. 305 Dr. Buck's name is misspelled as Gordon, instead of Gurdon, and on p. 306 the foot-note numbers are wrong. As to omissions in the text, we note that the function of the omo-hyoid is not stated, and that the muscles of the perineum of the male only are given. The muscles of the female perineum, as also those of the larynx, will be given, we presume, in later sections. The superior and inferior recti, it is stated, roll the eye-ball upwards and downwards, no reference being made to their inversion of the ball, due to the angle between the axis of the ball and that of the muscles. So, too, dislocation of the patella outwards is ascribed to the superior strength of the vastus externus, no mention being made of the effect of the obtuse angle of the bones at the knee. The statements as to the functions of the extensor communis digitorum and of the interossei are to our mind not at all satisfactory. Rising from the reading of their functions, one would not have a clear, sharp-cut notion that the interossei flex the first phalanges and extend the last two (as was shown long before Duchenne by John Hunter in 1777), and that the extensor communis extended chiefly the first phalanges and only partially the second and third. Indeed it is stated that the extensor "extends the fingers, notably the third phalanges on the second, and aids in the lateral motions of the fingers," which are clearly errors, as any one may prove by faradizing the muscles.

We point out the errors and omissions so that they may be amended in a second edition, and not in any

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sense in depreciatory criticism, for the work is a most valuable addition to our literature; creditable alike to its author and his subject. It cannot fail to be of service to every reader.

SOCIETY PROCEEDINGS.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting March 7, 1883.

EDWARD HARTSORNE, M.D., IN THE CHAIR.

DR. WALTER F. ATLEE read the following

HISTORY OF A CASE OF ABDOMINAL CYSTIC TUMOR, WHERE SEVEN YEARS AFTER REMOVAL OF THE TUMOR BY LAPAROTOMY A SECOND OPERATION WAS DEMANDED: TAPPING THROUGH THE VAGINA RESORTED TO, WITH CONSEQUENT DEATH OF THE PATIENT.

In June, 1875, I removed, by laparotomy, in the St. Luke Hospital, Bethlehem, a multilocular cyst from Mrs. DeM. The history of the case was given by Dr. Stout to the Board of Trustees, and published in their second Annual Report. The whole mass removed at the operation weighed seventy-eight and a half pounds. The lobes and lobules composing it were made up of cysts containing fluids of different densities, colors, and other physical properties. The pedicle appeared to arise from the rectum, at all events, the cyst-wall was separated from everything else, except the front of that intestine, and the only ligature used was there applied. The whole vascular supply was derived from meso-rectal vessels. Of course, the clamp could not be used. As always, in sewing up the incision in the abdominal walls, I carefully included the peritoneum in the sutures, as in this way adhesions of intestine and omentum, with the consequent discomfort and constipation suffered by the patient, are never observed, and, moreover, in case a second ovariotomy should have to be performed, the operation could be performed with much more ease and safety.

This patient recovered from the operation, though somewhat slowly, owing to delay and difficulty in removing the ligature, which was left hanging out of the external wound, and not cut short and left inside the abdomen, as is now generally practised. She remained in perfect health for seven years, but in the summer of 1882 came to my office complaining of considerable discomfort in the pelvis, where I detected by the touch, the presence of a swelling, caused by a thick, viscid fluid; in other words, there was plainly a second tumor formed there. This continued to enlarge, and in the month of January, the suffering it occasioned was so immediately threatening to the patient's life, that it was necessary to act. Great efforts were made to push the tumor out of the pelvis, but this was not to be accomplished. It remained to operate as before, and remove the mass by laparotomy, or to give relief by emptying the cyst by tapping through the vagina. The latter procedure was preferred, and about three pints of a very thick, dark-colored fluid were drawn off by a Thompson trocar. There was no difficulty about the operation, nor was it attended by any particular pain, nor was there any hemorrhage. The next day the patient felt herself completely relieved, but after that her pulse became quickened, and a general febrile condition, unpreceded by chill, succeeded. There was evident tenderness on pressure over the lower part of the abdomen, but no severe pain independent of this pressure. The stomach became so irritable as to reject everything swallowed. Death took place on the eighth day, under the marked symptoms of depression which accompany pyæmia. It was a death, most plainly, from cyst inflammation.

Notwithstanding the great number of cases of operation for ovarian disease reported nowadays in journals, more or less medical, this case is really one deserving of record, and one of true and special interest to the pathologist and to the surgeon.

In removing the large mass in the first operation, in this case, it was noticed that no pedicle was found. It was separable by the fingers everywhere except from the front of the rectum, where it was necessary to apply a ligature and divide the attachment by scissors. The ovaries, as we all know, are situated in the posterior fold of the broad ligaments, on the sides of the highest part of the uterus, behind the Fallopian tubes and the round ligaments, which separate them from the bladder, and in front of the rectum, from which they are commonly separated by the lowest circumvolutions of the ileum. By a rounded cord, the ligament of the ovary, they are attached internally to the womb, and externally by two folds of the peritoneum to the sides of the pelvis.

As the ovary, in its normal condition, is not pediculated, at first, of course, a diseased ovary has no true pedicle. As it becomes larger, this pedicle is formed from changes in its normal connections with the adjacent womb; it consists of the Fallopian tube often much elongated, the broad ligament often considerably thickened, the utero-ovarian ligament occasionally hypertrophied to a large fibroid stem, the round ligament, and enlarged bloodvessels. If the tumor rises out of the pelvis the pedicle will be longer, and if bound down in the pelvis from early adhesions it will be shorter.

In some cases, however, and they are by no means rare ones, when cystic tumors are removed from the abdominal cavity, no such pedicle as the one just described is met with. In the case, whose history I have been relating, it was said that there was no distinct pedicle, and that the whole vascular supply came from the vessels of the meso-rectum. It may naturally be supposed that this was owing to the way in which the diseased mass may have been separated from its surroundings, and I therefore call attention to the fact that the same thing has occurred in the practice of an operator such as Spencer Wells. In his *Diseases of the Ovaries*, in relating Case CX., he says that he found no pedicle, and that the tumor derived its vascular supply from the omental and mesenteric vessels.

It seems to me most reasonable to look upon some of the abdominal tumors having these connections, not as enlarged and diseased ovaries, but as changed ovules, which have failed to enter the Fallopian tubes, have slipped in the interstices of the neighboring organs, become attached, received blood, and grown. In women, when the Fallopian tube has become adherent, in place of floating loosely, the ovule is not grasped as it leaves the ovary, and then it is not rare to see ten, fifteen, twenty, or even more small cysts, some as large as a pea, on the parts immediately in contact with the ovary. (See Sappey, vol. iii., p. 664.)

If one of these misplaced ovules was attached to a spot where plenty of blood was supplied, a large cyst could be formed, having no distinct pedicle, as in the case before us. As is seen in cases of extra-uterine fœtation, a well-made child can be formed in this way from a fecundated ovule, and we may suppose that from an unfecundated one a monstrous polycystic growth should form.

Although out of the way, I wish to mention here that the only two cases in which I have been consulted on account of a return of abdominal cystic tumors, were where there was no pedicle, and where the chief vascular supply came from the vessels in

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front of the rectum. One case is the one now under consideration, and the other is the one published in the *American Journal of the Medical Sciences* for January, 1883, on account of the bladder having been opened during the operation.

My reason for reporting this case, however, is not to advance any particular views in regard to the pathology of certain polycystic tumors of the abdominal cavity, but in order to speak of the mistake made in the treatment. In the words of one who has done as much as any other to advance our knowledge of the treatment of abdominal tumors, "Mistakes teach most valuable lessons, and, when discovered, are not likely to be repeated. Hence, in medicine, they should be recorded for the benefit of science and of humanity." (*General and Differential Diagnosis of Ovarian Tumors*, by Washington L. Atlee, in preface.) When this case presented itself, it was necessary to act; a speedy and most painful death was inevitable unless relief were afforded. It remained to choose between the removal of the cyst and the emptying of its contents by tapping through the vagina, the only way practicable of introducing a trocar. On account of the operation previously performed, and the impossibility of moving the mass in the pelvis, its removal was not attempted. A previous operation is not necessarily an objection; Dr. Washington L. Atlee records two cases where a second operation was performed, and in both successfully. Spencer Wells, in his table, gives thirteen cases in which he removed an abdominal tumor from a patient who had previously undergone the operation, and eleven of them were successful. Here, however, the immovability of the tumor was such as to make me positively sure that the attachments were so great as to render its removal impossible.

Of tapping through the vagina I had no personal experience whatever, and what is recorded by others, although not, as a general rule, favorable to the plan, did not deter me from it. Scanzoni goes so far as to say that if puncture by the vagina was always possible, abdominal puncture would soon completely disappear from surgical practice. The sac, opened in its lowest part, can empty itself more completely. (Scanzoni, *Traité pratique des Maladies des Organes sexuels de la Femme*, Paris, 1858.) Peaslee says that there are three considerations to deter us from it in all ordinary circumstances: 1st. The vessels are larger and more numerous at the lowest part of the tumor. 2d. If polycystic, the largest cysts are not at its lowest part; and 3d. There is greater risk of wounding other organs. (Peaslee, *Ovarian Tumors, their Pathology, Diagnosis, and Treatment, especially by Ovariotomy*, 1872.)

Emmet writes that he has punctured several cysts with a trocar from the vagina, and in every instance more or less cellulitis has resulted. This might, however, destroy the cysts, but he is not able to determine that, for all the cases passed from under his observation. (Emmet, *Principles and Practice of Gynæcology*, 1880.)

Thomas says that by this method two of the dangers of tapping, secondary escape of fluid into the peritoneum, and consequent peritonitis, are unquestionably avoided, but others are as surely increased, namely, those of injury to portions of the intestine and entrance of air into the sac, with consequent decomposition of the contents, septicæmia, and inflammation of the sac walls. His experience with the method is not large, but it leads him to agree with Spencer Wells. (Thomas, *Diseases of Women*, 1872.)

Spencer Wells says that tapping through the vagina is more liable to be followed by inflammation of the cyst than tapping through the abdominal wall, because it is not easy to prevent the entrance of air. The operation of tapping through the vagina is selected, not so much with the intention of simply emptying the cyst, as for the chance that should the fluid escape by the opening, as fast as it is secreted, the cyst may gradually contract, and the puncture close. This favorable result, however, is seldom secured. As a rule, air enters the cyst, the opening fills up, the fluid remaining in the cyst, or that newly secreted putrefies. Suppurative inflammation of the lining membrane of the cyst comes on, and is accompanied by a low form of septic fever or pyæmia, which can only be relieved by making and maintaining a free outlet for the discharge. The frequency of these consequences should make tapping by the vagina an exceptional practice, but it may be adopted in cases where an ovarian cyst is bound down in the pelvis by adhesions, and it is necessary to relieve the distress caused by pressure on the bladder and rectum.

The canula or an elastic catheter may be left in the cyst, though it is safer practice either to introduce a wire seton or a drainage-tube, so as to prevent the opening from closing, and make sure of the free and immediate escape of any fluid that may be secreted. Even with every care, however, Mr. Wells concludes, from his experience, that patients are so apt to suffer from some of the ill-effects of long-continued suppurative processes, that it is better, even at considerable risk, to remove a cyst, if at all possible, than to trust to any mode of drainage. (Spencer Wells, *On Ovarian and Uterine Tumors, their Diagnosis and Treatment*, 1882.)

Dr. Charles West, whose opinions have for me, at least, extraordinary importance, greater indeed on such a point than those of any other man, says that there is no doubt that inflammation attacking parts within the pelvic cavity is less apt to extend to the peritoneum than when it attacks an abdominal organ; of which rule pelvic cellulitis and inflammation of parts within the folds of the broad ligaments are apt illustrations. It is equally incontestable that pelvic peritonitis is less apt to become generalized than is similar mischief originating in the abdomen. Cyst inflammation is so dangerous, however, that it is doubtful if vaginal tapping may be employed, even when the cyst is simple. Its dangers are incalculable. The dangers of ovariotomy are far less. Except when a cyst is impacted in the pelvic cavity, he does not recommend tapping per vaginam. (West, *Lectures on Diseases of Women*, 1879.)

Our best authorities, therefore, teach us that the taping of polycystic tumors, at least, must be avoided; that the removal of the cyst is to be practised in preference; that when impacted in the pelvis, so that it interferes with the performance of functions absolutely necessary to life, tapping, to which we must have recourse, is particularly dangerous, owing to the frequency of cystic inflammation, and consequent death from septicæmia. In my case I thought to avoid this by taking precautions to hinder the entrance of air into the cyst, but it took place notwithstanding, and the death of the patient was occasioned by it in eight days.

If, unhappily, I should ever again be called upon to try to relieve a similar case, I should act differently, and, not relying upon any means to prevent the setting up of cystic inflammation, do more to establish a free outlet for the noxious products by which the system is poisoned, and do everything in my power to prevent their formation, by topical applications to the secreting surfaces of the cyst.

Dr. Noeggerath (*Ovariocentesis Vaginalis, American Journal of Obstetrics*, May, 1869), by pursuing this course, had such good results as to declare himself confident that, where a simple or compound cyst could be attacked through the posterior vaginal cul-de-sac,

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this operation would take the place of laparotomy. The plan he prefers is to make first a transverse incision, about an inch long, behind the cervix uteri and through the roof of the vagina up to the cyst. This, coming into view, is then evacuated by a free incision, and, finally, the edges of the two incisions are stitched together by five or six silver sutures. The cyst thus left free and permanently open is daily washed out with antiseptic injections until it finally contracts, and ceases to afford any secretion. Although, at the present time, it is not likely that in ordinary cases any one would choose to perform this operation to that of the removal of the cyst, yet all experience shows that when the cyst is so firmly fixed in the pelvis as not to be removable, it diminishes in a marked degree the great danger necessarily incurred by tapping through the vagina—that of poisoning of the system by the absorption of the putrid products of cystic inflammation.

I feel certain myself that I made a sad mistake in not operating in this way, and report this case, as a warning to others—*Bene faeit qui ex erroribus aliorum, sibi exemplum sumat.*

DR. WILLIAM GOODELL said that he did not think the attachment of the tumor to the rectum was so unique as the return of the tumor. He had on several occasions removed tumors without being able to find the true pedicle, on account of the many adhesions. He could not agree with Dr. Atlee with regard to the origin of the cyst—he did not think it could have come from a wandering ovum, since, in that case, it would have been monocystic.

He regarded tapping per vaginam hazardous, for the reasons given by the late Dr. Peaslee, first, on account of the danger of wounding bloodvessels, and second, on account of the danger arising from the entrance of air into the cyst. He did not understand why the air could enter the cyst so readily after tapping per vaginam. When he performed tapping by this method he employed the aspirator. Returning to the question of the attachment apparently of the pedicle to the rectum, in the case reported, he said that it was quite common not to find a pedicle in some forms of intra-ligamentous cyst, because they had to be enucleated, and referred to the statements of Lawson Tait with regard to this difficulty of determining the origin of the tumor. He desired to call attention to the pathological characters of the recurrent growths, and stated that according to his observation they were always malignant, and that they recur in the stump of the pedicle, or, as he had seen, at the site of the adhesions. He alluded to a case which occurred in his own practice, and to one related to him by Dr. Bantock, of London, which confirmed the statements made.

He asked Dr. Atlee whether he could explain why the air entered so readily into cysts after tapping per vaginam.

DR. ATLEE in reply said that he had seen no reason given, but thought it was owing to the difficulty in closing the wound made in the tapping.

DR. R. P. HARRIS remarked, that perhaps he could throw some light upon the cause of this admission of air, from what he had observed in a case of removal of hemorrhoids. Some years ago, soon after the introduction of the écraseur of Chassaignac, he called in the late Dr. Joseph Pancoast, who had obtained the instrument, to make use of it in removing a mass of hemorrhoids from the rectum of a very anæmic man, rendered such by repeated hemorrhages after defecation. After the operation, to prevent, as he stated, the suction power of the diaphragm upon the rectum, endangering secondary hemorrhage, Dr. Pancoast introduced into the anus a small box-wood tube. The effect of this was soon demonstrated: a large drop of serous fluid descended the tube and stopped at its exit; when the diaphragm arose in expiration, the drop was drawn up the tube, and when it descended in inspiration, it came down again; thus showing the pumping effect of the diaphragm upon the pelvic contents. Let this open tube become an opened cyst with flaccid walls, and we have air pumped into the cyst, as it was into the rectum of our patient.

DR. J. EWING MEARS asked Dr. Atlee whether a post-mortem examination had been made. He thought the observations of Dr. Goodell with regard to the difficulty of finding the true pedicle in cysts with many adhesions, and to the pathological characters of the recurring tumor in these cases to be correct, as such had been his experience in instances of which he had had personal knowledge. With regard to the entrance of air into the cyst, when tapping is performed per vaginam, he thought the explanations of Drs. Atlee and Harris were correct. A cyst firmly impacted in the pelvis is separated from the vaginal tube by a comparatively thin septum, differing greatly in its anatomical characters from the abdominal wall. The opening made by the trocar in this septum and in the cyst wall attached to it by adhesions, does not close perfectly, and the air drawn up into the vaginal tube passes readily into the collapsed cyst.

DR. ATLEE, in reply to Dr. Mears, stated that no post-mortem examination had been made.

CINCINNATI ACADEMY OF MEDICINE.

Stated Meeting, February 15, 1883.

THE PRESIDENT, J. S. CLEVELAND, M.D., IN THE CHAIR.

DR. GEO. E. WALTON, having recently returned from an extensive tour in and about Florida, read a paper on

THE THERAPEUTIC VALUE OF THE CLIMATE OF FLORIDA.

DR. WHITTAKER observed that the opinions of the essayist were certainly entitled to great credit, because he had made something of a specialty of balneology and climatology, and had based his statements upon personal observations. He believed, however, that all our knowledge of climatology stands in need of revision, to make it correspond with the recent disclosures concerning the etiology, or pathology, of infectious diseases, which are the affections to which we chiefly have reference when we speak of the influence of climate; for up to the present time climatology has been construed chiefly to refer to miasmatic influences, as determined by heat, moisture, and vegetable decomposition, together with some definite knowledge concerning atmospheric vicissitudes, and some vague allusions to electric conditions; and all these facts were considered rather in the light of producing and engendering the poisons of disease. But the present tendency of etiology is not to admit the possibility of producing infectious diseases by any such causes, but to maintain for each an exclusively parental birth; so that the factors which go to make up a climate should be studied from the standpoint of disseminating rather than developing a disease; just as we would say that a high wind would spread, but could not produce, a fire.

We do certainly recognize every day the interdependence of disease and climate. Thus the tropics have been, from time immemorial, hot-beds of cholera, dysentery, and yellow fever; while the temperate regions are the home of malaria, rheumatism, bronchitis, etc. The arctic zone enjoys comparative immunity from infections, and in the extreme regions of the north the process of "taking cold" is almost unknown, and would be so entirely, perhaps, if its inhabitants could

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entirely dispense with indoor life. Surgeons tell us that wounds heal much more kindly and quickly in the arctic regions, or what is the same thing, at high altitudes elsewhere, than in the temperate or torrid zones, or in the lowlands. Moreover, we may actually draw a line beyond which some diseases do not pass at all. We know the limits of yellow fever and malaria, and beyond the fortieth degree of latitude, it is said, that though sporadic cases may occur, dysentery almost never becomes epidemic.

We know pretty well as the sum and substance of the study of many centuries, what are the conditions that favor the spread of disease, but what we want to know now, is the nature or cause of the disease itself. We are a good deal like a farmer who understands pretty well the condition of his soil, but is ignorant of the character of his seed.

Now, however, that we are being furnished with definite information regarding the germs of disease, we can begin to see definitely how they are affected by climates. Recent researches in physics have revealed the fact that the air everywhere is full of germs, and we make unconscious studies of them every time a ray of sunlight enters a darkened room. We live at the bottom of a vast aerial sea, thickly peopled with dead and living things. Mr. Tyndall has shown us that the color of the sky is due to these atmospheric particles, and that the sky is literally the dust of the earth. All these particles, animate and inanimate, being material things, must obey the law of gravity, of course, and sink or float according to their weight. Like the stars, which are the motes of the universe, they circulate at different distances; but unlike them, they are more liable to be disturbed and carried away. Most germs are so heavy that they float near the earth, and would come to rest upon its surface if it were not for the wind which may waft them to great distances, and which, even when apparently still, moves at the rate of twenty inches per minute. The rain beats them down upon the surface of the earth, where they adhere for a time, and a strong wind blows them away, and so clears the air, as we feel and say, especially after a storm. But falling upon the earth, they adhere to its surface until again dried and dissipated by the sun and wind. Mr. Tyndall has shown us that the dust which falls in closed rooms is chiefly that which is deposited from the air in the room, and by coating the inside of a hermetically sealed box with glycerine to get a sticky surface, the beam of an electric light transmitted through its glass windows, visible before, becomes optically free from particles, and hence invisible in the course of a few days. Invisible, that is, it is dark like the regions of interstellar space. Of course, the bulk of the dust of the air is not made up of the germs of disease. Coal dust, mineral dust of various kinds, fragments of cotton and wool, pollen of plants, scales from the whole insect world compose a part of it; but the bulk of it is made up of germs infinitely minute, and infinitely more numerous than these particles. The common bacteria of putrefaction enter largely into its composition, as we soon find when we leave exposed to the air any organic matter. These germs seem to circulate in clouds, or we might say flocks, as we observe when a number of test-tubes containing organic matter is exposed to the air, that they are not all affected at the same time, or alike. When disease appears in a country, or a part of a country, we see the same thing in its attack of certain regions or individuals, and escape of others.

Heat favors the development of germs of all kinds, because all living things require a certain amount of it as an indispensible necessity of life. But different germs thrive under different degrees of heat. Thus the germs of milzbrand grow best in the cold climate of Siberia, while the parasites of tuberculosis require a body heat to develop and reproduce themselves.

Desiccation prevents or retards the growth of germs, and it makes a good deal of difference whether we inhale or ingest germs in a moist or dry state. Probably the exceptionally long stage of incubation we sometimes notice depends upon the relative dryness or humidity of the germs, and probably the immunity from disease of certain regions may be explained by the great dryness of the air. The weight of the air acts in the same way. A wet air is always heavy, and holds germs down near the ground, while a dry air permits them to float up above our heads. The health of altitudes is best explained in this way.

The germs of hay fever are very light; they float at great altitudes to great distances, but they permeate the whole air at times, and are often beaten down upon our streets by a heavy rain in a so-called "shower of sulphur." Numerous observers have now shown us how the prevalence and severity of hay fever stands in exact relation to the number of pollen grains that may be gathered upon a square inch of a gelatine-coated glass slide held in the air.

That heavy particles may be carried great distances by the wind is shown by the statement of Mr. Darwin, who remarks in his *Voyage in the Beagle*, that ships at sea have often been compelled to put about at distances of one thousand to sixteen hundred miles from shore by darkening clouds of dust which, on examination under the microscope, are found to consist of particles of sand or silicious matter.

Vegetable decomposition favors the development of germs of all kinds, perhaps by feeding them. Swamps and jungles have always been hot-beds of disease.

Florida, like all other tropical climates, offers thus all the factors for the spread of germs, and if Florida has hitherto had immunity from tuberculosis, it is because the disease has been only comparatively lately carried there. The soil has been fallow, but the seed has not been sown. Now that it is carried there, under the mistaken idea of curative resort, we will probably soon have mortality statistics equal to any of the States. Of course, the manufacturing towns will always excel Florida in this respect, because the bacillus tuberculosis is strictly a parasitic disease, and never develops spores outside the body. Hence, the accumulation of individuals in shut-up chambers or shops, as in factories, heated at that, offers the very best conditions for the spread of the disease. The relief which some patients do get in Florida during favorable seasons is due to the fact that they spend most of the time out-doors. The far greater immunity of Nassau, which, in the speaker's opinion, is the best place of resort on this hemisphere, is probably due to the constantly ascending column of heated air from its surface; sea-air is always healthy anyhow, because it is so little infected with germs, and many persons are cured or relieved of consumption at sea, provided they remain on deck. Under these conditions, as at Colorado, patients are protected against reinfection, or auto-infection, which is constantly taking place at home. For the actual number of germs in the body has much to do with the localization or generalization of the process. This fact has been abundantly proved by injections into the eye. A small number of bacilli injected into the aqueous humor produces a local tuberculosis, which only slowly and after a very long time becomes general, while a large number injected produces general tuberculosis in a few weeks.

The speaker had long ago found, as the result of his clinical experience, that Florida was the worst kind of a place for tuberculous patients, and he believed that the recent disclosures concerning the nature of the disease gave us a scientific reason for it.

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As to other diseases, those which require an equable warm climate, like chronic or senile bronchitis, bronchiectasis, emphysema, etc.; those which call for appeal to the skin, like Bright's disease; those which call for relaxation and rest, like nervous diseases—Florida is the climate above all others. Jaded business men and overworked and worried professional men get the greatest relief in Florida, which is a typical "land of the lotus eaters."

DR. P. S. CONNER said that he was glad that the essayist sounded a note of alarm for tuberculosis in Florida. Before the war it was said to be the graveyard of consumptives. A great mistake is made in sending patients too far north in this State, where malaria is prevalent and where the temperature, though not frosty, is subject to too many changes. The southern coast is far more favorable; the air is more pleasant and vegetation is not near so rank and abundant as in the northern portion. For consumptives the southern part of Texas, New Mexico, and old Mexico are better suited than Florida. If the speaker were subject to phthisis, he would go south somewhere where there is little vegetation, as below the Keys of Florida, but he would spend most of his time on ship away from the land in the southern waters. He agreed with the previous speaker that Nassau and the other islands were preferable to the mainland of Florida. It is a question if it will ever be possible to establish sanataria in Florida. The climate of this State has been overrated. The trouble is, that by making it a place of resort for the sick it has become the place for hotel-keepers, doctors, and others who expect to live on the patients, and who trumpet forth this climate for the purpose of attracting as many patients as possible. In the speaker's opinion, Georgia and the southwestern coast was much better for consumptives than the southeastern coast of the United States. As regards winter climes, the speaker thought it very questionable if it would be proper to send all consumptives north. Minnesota may be very good for some persons but very bad for others. The same may be said of the other western health resorts.

DR. REAMY also congratulated the essayist on the pleasing and practical manner of dealing with his subject, a matter to which medical writers paid too little attention, generally.

He agreed to what had been said about the value of the climate of Florida for consumption, and, as far as his experience went, also confirmed what was said about the preference of Nassau and the Bahama Islands. A friend of his, Dr. Jackson, who was subject to phthisis, when so feeble that he could scarcely walk about, improved steadily as long as he remained in Nassau, but lost all his strength when he went to Gainesville, in Florida, whence he came home to die.

The speaker said he must, however, note one inconsistency in the remarks made by Dr. Whittaker. If an emigration of consumptives to Florida would make it a great centre for the spread of this disease, it is singular that in Nassau not a single native ever had phthisis. If the disease were so dangerous, in an island as small as Nassau all the inhabitants would soon have contracted it. If the conditions here are not so favorable for the development of bacteria, they are not such as to entirely kill them.

DR. WALTON said he was glad to find that all of the speakers agreed with him as regards the value of the Florida climate. He thinks in the future there may some place be found in Colorado or Arizona, sheltered on the northward by mountain ranges, which is dry, mild, and equable in climate, and specially fitted for consumptives; but as yet the necessary facts have not been obtained for selecting such health stations.

It is possible that tuberculosis depends on a bacillus, but we can hardly yet say whether this germ has actually been discovered. We are not yet in a position to say that taking cold has no causative relation to consumption; if none other, it may be that the depression of the system caused thereby, and the congested condition of the minute bronchial tubes, supply a favorable soil for the germination of bacilli. If catching a cold has nothing to do with the development of phthisis, it is difficult to understand why we see so much less of the disease in the warm air of a tropical climate. Statistics show that consumption is less frequent in the southern than in the northern States.

As regards Nassau, the speaker knew nothing more than that the mean average temperature is much higher than in Florida. Possibly the climate is drier from the evaporation caused by the heat of the sun, thus carrying rapidly upward all moisture from the surrounding ocean. If desiccated air prevents the development of bacteria, that may be the cause of the great improvement in phthisical patients.

One other factor in climate is perhaps of great importance, though it has as yet not been properly investigated, and that is the electrical condition of the air. It is well known that the upper region of the air is positive and the lower negative; that consequently we move continually in a negative plane of electricity. An instrument to record these electrical conditions would be a great desideratum in the United States Signal Service, if it were not too expensive. Such an instrument, but a very expensive one, has been used at Glasgow and London. It has been found that there are wide fluctuations in electrical potential, both positive and negative. It may be, therefore, that in Florida the mean electrical potential is low, thereby causing the relaxing influence of that climate. In order to accurately fix the climate of any place, several factors, as the humidity, ozone, and electrical potential, as well as temperature and rain-fall, must first be investigated, and all of these data have not as yet been secured for a single station in this country.

CORRESPONDENCE.

ON THE RESPONSIBILITY OF PHYSICIANS EMPLOYED BY MANUFACTURING PHARMACISTS.

To the Editor of THE MEDICAL NEWS.

SIR: It is the habit of trade rivals to seek the injury of their competitors by saying with regard to experts in their employ that they are "owned" by the house employing them, and that any opinion uttered by them is but the word put in their mouth by the house for the purpose of selling goods. This is a very serious charge, and for the sake of honest expert work it should be met in every case by emphatic denial on the one side, and the most careful investigation on the other. Every expert should repudiate the charge of disloyalty and defend his integrity, and he should be defended as well by those who employ him. But if a charge is preferred of this nature the profession should investigate it, and expel the guilty parties from their ranks. Because of the great importance of this subject at this time, I am led to make the following remarks:

The moment a man enters a profession he is accountable to it, and he cannot escape his responsibility. From henceforth he is bound to protect professional and scientific interests. It is not the question of how well he serves the commercial interests of the house employing him, but how well he serves the profession that praises or condemns him. A loyal service to professional and scientific interest is met by reward, and

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disloyalty merits the punishment of a traitor. If the commercial interests of the house employing him are benefited by the publication of his work as a scientific man on the drugs or preparations handled by them, then is his employment of advantage in a monetary sense. If, on the contrary, the publication of facts injures sales, then is his work of no avail to them. But in either case he is in duty bound to publish facts only, and it is a question whether he is not responsible if he withhold facts that he may discover, even if their publication is not advantageous to demand, for when he places himself before the profession as a scientific man, he is bound thereby to tell all he knows when his professional opinion is asked for, otherwise his opinion cannot be regarded as an honest one. Opinions cannot be expressed nor articles written merely for the purpose of selling goods. To be scientific, they must contain the truth, the whole truth, and nothing but the truth, to the extent that truth may be obtained. A physician in the employ of a commercial house, therefore, is held accountable that his opinions and writings shall represent his honest conviction from a scientific point of view, and his views have weight with the profession only to the extent that they believe in his competency and integrity. He is, therefore, placed in the position of an expert, and held personally accountable for what he says. If, for example, an article is requested from his pen with regard to the therapeutics of a new drug or preparation of the same, it is equivalent to a demand upon him for his opinion as an expert, and must be so regarded, and, in the delicate relation which he occupies to professional and commercial interests, he should be specially guarded as to his utterances.

A false assay of ore on the part of a chemist in the employ of a mining company, published by them for the purpose of foisting their stock on the market, would be met by public condemnation. It is apparent, therefore, that in a case of this kind the reputation of the mining company is dependent upon the reputation for integrity of the expert in their employ. In a similar manner, every physician in the employ of a commercial manufacturing pharmaceutical house should be held responsible; then his competency and integrity will guarantee the honesty of the house employing him, and his name, in connection with the house, always be an honor to both parties concerned. But if it be proved that a physician in the employ of such a house is merely a tool in their hands for trade purposes, without regard to professional and scientific interests, and that his opinions are biased by his relations with the sale of the drug or its preparation, then is he a disgrace to the profession to which he pretends to belong; and if a house should seek to blind the profession by using such a pretender as a catspaw to rake their chestnuts from the fire, they, too, would merit the disdain of all honest men.

Very respectfully yours,

F. E. STEWART, M.D., Ph.G.

PHILADELPHIA, March 12, 1883.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

To the Editor of THE MEDICAL NEWS.

SIR: There seems to be a disposition in some quarters to return to the use of bromide of ethyl for anæsthetic purposes, and it is urged in its favor, that it is admirable for brief operations on account of the rapidity of its action. In view of these facts, I beg to call attention to some experimental trials of this article by self-inhalation, the results of which were published in the *Cincinnati Clinic and Lancet*, April 10, 1880, page 327. By three different trials I fully learned the rapidity of its action, and the very brief period required for all its effects to pass off. There was, however, one other very important effect. In each instance the pulse showed a very great and rapid increase of rate. The figures were—from 80, before inhalation, to 100; from 80 to 120; from 78 to 120—as observed by medical friends who were present. This great change took place *within the first minute or first minute and a half of inhalation!*

Now the object of this note is to call the attention of gentlemen who are using bromide of ethyl as an anæsthetic to this point, that it may be ascertained whether this effect is general or only exceptional. It is to be hoped that some observations will soon be published. If the effect is general, then it would seem impossible, from a theoretical point of view, that an anæsthetic causing such great and sudden changes in the heart's action can be safe. Yours, etc.,

J. C. REEVE.

DAYTON, OHIO.

NEWS ITEMS.

NEW ORLEANS.

(*From our Special Correspondent.*)

THE DEATH FROM CHLORAL HYDRATE in the Charity Hospital, referred to in THE MEDICAL NEWS, of Feb. 3, 1883, occurred in one of the late Prof. Hawthorne's wards, some ten years ago. The case was mentioned merely as a point of information, and not in criticism of any former, or the present, management of the hospital. It is scarcely within the reach of human perfection to conduct a hospital with eight hundred beds, in such a manner that some accident or mishap, involving a human life, shall not occasionally occur.

THE STATE MEDICAL ASSOCIATION OF LOUISIANA will hold its next session at Shreveport, beginning on April 4th. The obstructions to a successful organization of a State Medical Society in this State will in a short time be quite nearly removed. Formerly the meetings have been held in New Orleans, and a physician living in Philadelphia could attend them with less inconvenience, or sacrifice of time, than those living in some of the parishes of Louisiana. The roads completed and under construction will in a great degree obviate this difficulty. It is trusted this will afford an opportunity, which will be improved, to unify the medical profession of this State.

It is expected that the coming meeting will be largely attended by the country members of the profession. If this expectation is realized, it will prove to be a meeting of interest, since the rural moiety of Louisiana practitioners comprises much talent and cultivation.

It is not yet known what reports or papers are to be presented.

SMALLPOX still prevails in this city, the fatal cases last week numbering 40; 10 whites, 30 blacks. So far in this year the total record of deaths: whites 65, colored 122.

THE CARNIVAL (February 6th) attracted a large concourse of people to this city. We rightfully accuse the Mohammedan and the Hindoostanee pilgrimages and festivals, of carrying cholera through large portions of the Eastern World; and also of planting the infection on lines of travel which introduce it into Europe and thence to America. Is it not time that intelligent and conscientious sanitarians shall demand that some precautionary measures be exercised in this country touching popular convocations in times of danger from portable diseases? It would not be an immodest demand, which insisted that every person who choose to

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attend a popular assemblage in a town where smallpox was known to be prevailing, should be required to give proofs of protection before entering the town. It would be still more important to require him to give satisfactory evidence on leaving the infected town, that he was not to prove a carrier of fomites to some uninfected and unguarded population.

DETROIT.

(From our Special Correspondent.)

THE ANNUAL MEDICAL COMMENCEMENTS AT DETROIT.—The oldest, *The Detroit Medical School*, held its closing exercises on the evening of February 28th. It gave diplomas to its entire Senior Class, thirteen in number. Dr. H. O. Walker delivered the valedictory address, and Prof. Chas. A. Kent discussed the question, "How Shall We Protect Society from Medical Imposition."

The Michigan College of Medicine held its closing exercises on the evening of March 5th. It gave the degree of M.D. to twenty-eight of its Senior Class. One, we understand, failed to get the prize. The public address was given by Rev. E. P. Rexford, and the valedictory by Dr. J. B. Book.

After its public exercises each college invited its graduates to a banquet at the same hall, where they were presented to a large number of the medical profession of Detroit and adjoining towns. Excellent music and a profusion of flowers rendered the stage and the general exercises very attractive to the large audience attending each commencement.

The terms just closed have been in both schools more than usually prosperous. Yet there have existed constant rumors of negotiations looking towards a consolidation of the two schools. It is to be supposed that the object of those seeking this union has been to make one still more vigorous institution, that should be more profitable to its stockholders.

The spring terms of the colleges will go on as usual, great effort having been made to render them worthy of the attention of students.

The Commencement of the Medical Department of Michigan University is not held till June.

IMPORTATION OF SMALLPOX FROM RIO JANEIRO.—On February 28th the emigrant inspector at the New York quarantine discovered a case of smallpox among the crew of the S. S. Ptolemy, just arrived from Rio, whence she had sailed on January 24th. At the time of her departure from that port the disease was causing from twenty to thirty deaths weekly. The surgeon of the vessel gave the assurance that the case had been isolated from the beginning, but another of the crew was found suffering from symptoms which were regarded as suspicious. This man was removed to the quarantine of observation, where on the second day the eruption was developed, and he was sent to the hospital at Blackwell's Island. Some time before the arrival of the vessel two seamen were taken sick, but not with smallpox. The surgeon, however, with mistaken zeal, put them into the same room with the case first developed. On the third of March the disease appeared in these men also. The clothing of the men who were in the ship's hospital was disinfected, and their mattresses burned. The remainder of the crew were vaccinated.

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.—The fifth annual meeting of the Sanitary Council of the Mississippi Valley will be held at Jackson, Miss., beginning on Tuesday, April 3d, proximo. In view of recent action—legislative and judicial—affecting the sanitary interests of territory not embraced in the Council, in common with the Valley proper, invitations are extended to prominent sanitarians and health officials in the South Atlantic and Gulf States. It is hoped that such invitations will be generally accepted.

DEATH FROM CHLOROFORM.—A press dispatch from Norfolk, Va., states that a lady in that city on March 9th, died under extraordinary circumstances. She had been in the best of health, but suffered from an occasional attack of neuralgia, which was ascribed to an ulcerated tooth. Chloroform was administered after the usual custom, for the removal of the tooth, but after it had been successfully drawn the lady was found to be dead. The chloroform had been administered by her husband, who is a physician, and the usual precautions were taken.

MICHIGAN SANITARY CONVENTION.—A Sanitary Convention will be held at Reed City, Michigan, under the auspices of the State Board of Health, on April 26 and 27th. The objects of the convention are stated to be the presentation of facts, the comparison of views, and the discussion of methods relating to the prevention of sickness. Dr. E. S. Richardson, of Reed City, is Secretary of the Convention.

Among the subjects which it is expected will be presented and discussed are the following:

How Diseases are Contracted and Communicated.
The Contagiousness of Diphtheria.
Personal Liberties *vs.* Public Health Laws.
Coöperation of Citizens with Sanitarians a Necessity in Preventing the Spread of Disease.
Medical Humbuggeries.
The Ventilation of Ordinary Dwellings.
Food and its Adulterations.
The Disposal of Slop-water and Waste Matter in Villages.
Drainage and Sewerage.
The Water Supply of Reed City and the Dangers of its Contamination.

CORRUPT TRAFFIC IN DEAD BODIES.—In his message to the Legislature of Massachusetts, Governor Butler called attention to the management of the Tewkesbury Almshouse and severely censured the course alleged to have been pursued by Mr. Marsh. Mr. Marsh has been in the institution for twenty-five years. For the past five or six years infants have not been retained in the institution, but have been farmed out. While they were cared for in the institution, however, Governor Butler charged that from 150 to 250 infant corpses were annually sold as merchandise to a single medical institution in the State for from $3 to $5 each. It was also charged that the bodies of adult paupers were sold secretly and not in accordance with the law.

A representative of *The Journal* recently visited the almshouse to make an investigation and to see what defence Mr. Marsh would make against Governor Butler's charges. It appears that there are in the State four medical institutions authorized by law to receive subjects from the almshouse. During the past ten years the number of deaths was 2,766. Of this number only 585 of the pauper dead were delivered to those institutions. The superintendent has no record of what became of the other bodies. He says that they were buried in pauper graves. He admits that if he had sent all the subjects to the medical institutions he could not then have supplied the demand. In view of this, the question is naturally raised, Why did he bury them when science demanded them and the laws allowed them to be used for scientific purposes? The inference is that, as Governor Butler says, the super-

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intendent has sold many of these bodies for his own benefit, inasmuch as no record of the sale or the burial is kept.

PROPOSED SEWERAGE OF CHARLESTON, S. C.—The Department of Health, of the city of Charleston, in its annual report for 1882, urges the importance of a system of sewerage. "When it is realized that we have over six thousand vaults in our midst, that there is annually expended for cleaning them a sum of money approximating in amount an annual interest on the $300,000 of capital necessary for complete sewerage; when we know that the ocean flows and ebbs in and around us twice every twenty-four hours, that we are not located on a small sluggish river, as some cities are, it is most extraordinary, with our mortuary statistics for constant admonition, that the citizens of a city so favorably located for complete cleanliness should remain longer inactive on such a subject." The mortuary statistics, referred to, are for the year: Total deaths, 1726; of whites 554, of colored 1172, equivalent to a rate of 33.01 per 1000 of the whole population, or of 22.32 for the whites and 42.91 for the colored.

THE MANUFACTURE OF SEGARS IN TENEMENT-HOUSES.—Governor Cleveland, of New York, last Monday signed the bill prohibiting the manufacture of segars in tenement-houses in New York City.

THE UNIVERSITY OF THE CITY OF NEW YORK held its forty-second annual commencement last Tuesday. The degree of M.D. was conferred on one hundred and sixty-four candidates. The Faculty prize of five hundred dollars, for the highest standing in the class, was awarded to Henry P. Loomis, a son of Prof. Alfred L. Loomis. The prize of three hundred dollars, for the best competitive examinations in the seven general departments was awarded to Le Roy W. Hubbard.

MIAMI MEDICAL COLLEGE COMMENCEMENT.—The commencement exercises of Miami Medical College took place at Cincinnaiti on March 1st, forty-one graduates receiving the degree of Doctor of Medicine. The valedictory address was delivered by Dr. Joseph Eichberg, Professor of Physiology.

COMMENCEMENT OF THE BUFFALO MEDICAL COLLEGE.—The commencement exercises of the Buffalo Medical College were held on February 27, 1883, the degree of M.D. being conferred on fifty-one candidates. Dr. M. D. Mann delivered the valedictory address.

THE PHILADELPHIA OPHTHALMIC AND AURAL BOOK CLUB has just been organized in this city, with the object of circulating among its members the literature of these specialties.

CONFISCATION OF AUSTRIAN MEDICAL JOURNALS.—In one week the *Wiener Medicinischen Blätter* was confiscated on account of its article on the Military Sanitary Service: the week before the *Medicinisch-Chirurgisches Central-Blatt* met with a like fate on account of an article on the civil appointment of physicians, and at the same time the *Pharmaceutische Post* was also suppressed for its criticism of a recent decree of the Austrian Minister of the Interior.

DURATION OF MEDICAL EDUCATION.—The number of years that a student has to spend at a medical institution prior to being admitted to examination for a medical degree, in various countries, is as follows: Sweden, ten; Norway, eight; Denmark, six and seven; Belgium, Holland, Italy, and Switzerland, six; Russia, Portugal, Austria, and Hungary, five; France, England, and Canada, four; United States, three or two; Spain, two.—*Lancet*, February 17, 1883.

DR. LEOPOLD, of Leipzig, has been appointed Extraordinary Professor of Gynecology in the University at that place.

STATUE OF BOUILLAUD.—A subscription has been started in France for the erection of a statue in memory of PROF. BOUILLAUD. Angoulême, the place of his birth, has been selected as the locality.

PROF. SANDERSON'S SUCCESSOR. — MR. ALBERT SCHAFER, F.R.S., Fullerian Professor of Physiology at the Royal Institution, has been appointed Jodrell Professor of Physiology at University College, in the vacancy occasioned by the resignation of Dr. J. Burdon Sanderson, LL.D., F.R.S., appointed Wayneflete Professor of Physiology in the University of Oxford.—*Lancet*, February 17, 1883.

CONSUMPTION IN RHODE ISLAND.—From the registration report just issued we learn that the number of deaths caused by consumption, in 1881, was 706. This is much the largest number ever reported in Rhode Island in any single year.

Although the number is considerably larger than in any previous year, the proportion to the whole number of deaths, from given causes, is less than in many previous years.

The average annual proportion during a period of twenty years, previous to 1880, was 16.84 per cent. The proportion in 1881 was 15.12 per cent.

The proportions were 30.2 descendents of American parentage, and 60.8 descendents of foreign, in each 100.

The proportion of foreign parentage is much larger than ever previously reported.

During the year 1881 the largest number of deaths from consumption, in any quarterly period, occurred in the third quarter. This circumstance is not in accordance with the rule of many years.

Contrary to rule, also, was the occurrence of the largest monthly number of deaths in August. Following August in the order of largest mortality were January, May, March, April, and July.

In 1881, 377, or more than 53 per cent. of the whole number of deaths from consumption, were of persons between twenty and forty years of age.

From the statistics the inference is unavoidable that consumption, as a cause of death in Rhode Island, has gradually diminished since 1865. The facts shown by the statistics reasonably warrant the following conclusions:

1. That consumption, in the total population of Rhode Island, has gradually lessened in frequency of occurrence, or that medical treatment has been more successful in its cure.

2. That the lessened frequency, or more successful treatment of consumption, has been confined almost exclusively to the population of American parentage.

3. That the proportion of mortality from consumption has always been larger in the population of foreign parentage.

4. That the mortality from consumption, in the class of foreign parentage, has not diminished in proportion to the population of the same parentage, during the last twelve years.

In the city of Providence the statistics show the following important facts:

1. In the population of American parentage in Providence there has been a very remarkable change in the mortality from consumption during the last twenty-five years. In 1856 there was, in this popula-

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tion, one death from consumption in 268.2; in 1880 there was only one death in 435.2. This decrease has been continuous during the whole period.

2. In the population of foreign parentage, in Providence, the *rate of mortality* from consumption has changed only very slightly in the last twenty-five years. In 1856 the rate was one death in 262.6 of the population; in 1880 it was one in 268.0; and during this time it has been both slightly higher and lower than these rates. The rate of mortality from consumption, among the population of foreign parentage, in 1880, was almost precisely the same as the rate in the population of American parentage in 1856.

Consumption as a cause of death has, as far back in years as comparative registration of death reaches, shown a larger mortality in proportion to the population, in Massachusetts, than it has in Rhode Island.

The statistics show that the proportional mortality, from consumption, has also diminished very considerably in Massachusetts, since 1865.

SANITARY PRECAUTIONS AT MECCA.—In a letter to the Sanitary Administration of the Ottoman Empire M. O. Noury gives the details of the epidemic. Three hundred and twenty-four deaths occurred in the holy city.

The sanitary measures prescribed for the pilgrimage, and enforced during the past season, have been ss follows:

1. At Mina, the labor required at the slaughter houses and at the ditches, where the remains of the sacrifices were thrown, was performed by Takrouris, under the supervision of fifty infantry soldiers. Eleven carts were constantly employed in the removal of the remains to the ditches, so that cleanliness was secured in the valley.

2. At Mecca the houses were whitewashed and the closets disinfected with lime.

3. Cleanliness was strictly enforced, both in public places and in private houses.

4. The prompt depopulation of the town and the starting of two caravans earlier than usual were steps recommended and carried out.

5. The sanitary service were warned of cases of sickness whether among pilgrims or in the permanent population of Mecca.

6. Provisions and liquors were kept under inspection.

7. Public latrines were cleaned, and a certain quantity of lime thrown into them daily.

8. The reservoirs of Arafat were emptied, cleaned, and refilled two days before the arrival of the pilgrims.

9. The reservoirs were placed under military guard to prevent pilgrims from bathing or washing their linen therein.

10. The sacrifice of animals otherwise than in the authorized slaughter houses was forbidden.

11. It was the intention to place a military guard around the slaughter houses, that the flocks of sheep might be kept there. Sheep found in the tents were to be seized and placed within the military lines.

12. The importation into Mecca of meat from the sacrificed animals, whether in a fresh or dried state, was prohibited.

13. Lastly, the skins of these animals, after being well salted and dried, had to be sent directly to Jedda by the owner or other interested party.

M. Noury refers to the fact that the first cases in the last two epidemics occurred among soldiers, but considers that these were not really the first cases, although they were the first cases verified. He considers that cholera has its birthplace in Hindoostan, and that it is always imported into the Hedjar by pilgrims. He recommends that quarantine against the East be rigorously enforced, and proposes that pilgrim ships should be subjected to an examination in the port of Jeddah additional to that at Camaran. This final survey would check previous errors, and expose false declarations and intriguing on the part of ship captains and other interested parties.

The sanitary measures in the thirteen articles were carried out, with the exception of the military guard, which the government promised to station around the slaughter houses. The want of it produced much uncleanliness in their neighborhood; but the regular employment of the carts and the Takrouris in the removal of the offal of the sacrificed animals did not give time for its putrefaction, so that this year the valley of Mina was kept in a more cleanly condition than at any former period. On this account the disease was not developed in its usual formidable manner either at Mina or at Mecca. Of course this satisfactory result was partly brought about by the prompt evacuation of the town immediately after the fêtes.

The local authorities collected from the slaughter houses nine thousand and twenty-nine skins of sheep, goats, and camels, besides several thousands of skins of sheep slaughtered in the camps. The total of the immolated animals must have been between eleven and twelve thousand, and this in a year when the pilgrims were comparatively few in number. Besides five hundred and five latrines provided at Mina, a special trench was dug for each tent. These thousands of trenches, and the excremental matter left anywhere by the lowest classes of pilgrims, exhaled a hurtful odor, for the neutralization of which the writer had tried in vain to obtain a disinfectant that could be used over an extent of country requiring three quarters of an hour to go from one end to the other, and half an hour for crossing its breadth.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending March 3, 1883, indicate that consumption has increased, and that remittent fever and typho-malarial fever have slightly increased in area of prevalence.

Compared with the average for the month of February in the preceding six years, erysipelas and neuralgia were more prevalent; and remittent fever, pneumonia, diphtheria, and whooping-cough, less prevalent during the month of February, 1883.

Including reports by regular observers and by others, diphtheria was reported present during the week ending March 3, and since, at twelve places, scarlet fever at sixteen places, measles at nine places, and small-pox (one case), at Detroit, March 3.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 5 TO MARCH 12, 1883.

BROWN, HARVEY E., *Major and Surgeon.*—To be temporarily assigned to duty at Mount Vernon Barracks, Ala., during the absence on leave of Captain T. A. Cunningham, Assistant Surgeon.—*Par. 2, S. O. 17, Department of the South, March* 6, 1883.

HOPKINS, WILLIAM E., *First Lieutenant and Assistant Surgeon.*—The leave of absence granted December 28, 1882, is extended two months.—*Par. 5, S. O. 56, A. G. O., March* 9, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

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ORIGINAL LECTURES.

MALARIAL REMITTENT FEVER.

A Clinical Lecture, delivered at the Charity Hospital, New Orleans.

BY S. M. BEMISS, M.D.,

PROFESSOR OF THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE IN THE UNIVERSITY OF LOUISIANA.

(Reported by J. H. BEMISS, M.D.)

GENTLEMEN: I ask your attention to-day to a case of continued malarial or remittent fever, whose clinical course and treatment you have recently had opportunity to observe. It is scarcely necessary to remind you how important a thorough acquaintance with this form of malarial fever is to its satisfactory treatment. Its specific cause is identical with that of the other malarial fevers. This is sufficiently proved by its occurrence at the same periods of the year, and in the same localities with other forms of malarial fever, and its convertibility with those other forms.

Its nosological classification is better expressed by the adjective "*remittent*" than by "*continued*," but if you carefully examine the charts of temperature which are being passed around, you will observe the striking parallelism between them and the temperature charts of typhoid fever so lately exhibited to you. You perceive, also, that while the charts show marked remissions, there is no decline of temperature to the normal standard until in the course of convalescence the remittent form of fever lapsed into the intermittent type.

Mr. W. H. Thompson will read the clinical notes, which have been carefully recorded by Mr. P. Michinard, Resident Student, and himself.

J. G., laborer, native of Germany, twenty-five years of age, was admitted to Ward 19, Bed 251, on the 17th of November, 1882. Arrived in the city on the day of his admission from some point on the Mississippi River above New Orleans. Gives a history of attack by a chill several days before admission, which was followed by fever which had not entirely left him, although he had a chilly sensation occurring every day. Temperature on admission 102.3°; pulse not counted, but rapid and somewhat dicrotic; tongue large, coated, and moist; spleen and liver not much enlarged, but there was tenderness on pressure over both; no tympanitis, or gurgling, and but little complaint upon pressure over abdomen; bowels constipated; urine non-albuminous.

Patient got five grains each of calomel and sodium bicarbonate; followed by two stools. After catharsis, he received ʒij liquor cinchonidiæ every third hour.

Nov. 21.—Temperature 103°; pulse 100; tongue, coated; complexion sallow, with flushed cheeks and injected eyes. Calomel and soda were repeated by the House Surgeon, followed by slight purgation, after which liquor cinchonidiæ was again exhibited as at first.

22d.—Temperature 101°; pulse 80. In the evening, temperature 102°.4; pulse 90.

23d.—Morning, temperature 101°.2; pulse 75. Evening, temperature 103°.4; pulse 84.

24th.—Morning, temperature 101°.4; pulse 80. Evening, temperature 103°; pulse 80. Liquor cinchonidiæ stopped; no stools since 21st; two Seidlitz powders produced one stool.

25th.—Morning, temperature 101°; pulse 80. Ordered surface sponged frequently with tepid water; diet of oatmeal and milk with iced barley water flavored with lemon peel for drink.

26th.—Morning, temperature 101.2°. Evening, temperature 103°; tongue coated; face flushed; complains of headache and abdominal pain. In the afternoon got a third dose of calomel and soda, each grs. vij.

27th.—Morning, temperature 101°. A very small stool followed the calomel. Liquor cinchonidiæ renewed and an amount representing thirty grains of the salt was given on the 27th, 28th, and 29th.

28th.—Morning, temperature 100°. Evening, temperature 103°.

29th.—Morning, temperature 101.5°. Evening, temperature 103°.

30th.—Temperature 102.5°. Cinchonidia solution stopped and ten drops of dilute sulphuric acid given thrice daily in ʒij compound tincture of cinchona. Patient thirsty, weak, and restless; no stool since 27th. Ordered beef essence, oyster soup, milk punch, thrice daily; for a drink, lemonade with bitartrate of potassium.

Dec. 1.—Morning, temperature 100.2°. Evening, temperature 103°. Patient restless and complaining of his costiveness; was allowed to take a Seidlitz powder, which produced two stools.

2d.—Morning, temperature 101°. Evening, temperature 102°.6; pulse 100°, weaker and somewhat dicrotic. Liquor cinchonidiæ in ʒij doses thrice daily substituted for tinct. cinchon. comp. and acid. Sustaining diet and stimulants.

3d.—Morning, temp. 101°. Evening, 102.8°.

From the 3d to the 6th, too little change in patient's condition to be worthy of note. He had no stool from the 2d to the 7th, when a stimulating enema produced the desired effect.

8th.—The first decided tendency to cure by conversion into the intermittent type exhibited itself. The temperature on this day was, morning, 99.6°; evening, 100.6°.

9th.—Morning, 98 6°; evening, 101°.

10th.—Morning, 98°; skin bathed in perspiration; evening, 100°.

On the 13th treatment was limited to dietetic and hygienic measures. On the 15th, slight rise of temperature was met by a recourse to quinine.

Chloral hydrate and bromide of potassium were occasionally administered, to induce sleep.

The first question you desire to hear discussed is, What is remittent fever, in point of pathology? In other words, what constitutes the difference in the morbid process of remittent fever as compared with the morbid process of the intermittent form, both being produced by the same toxic agent?

Now, in endeavoring to answer this question so as to instruct you properly, I think I may safely postulate the following proposition:

The typical form of malarial fever is the intermittent.

Let us understand one another on this point. Nature works by modes, whether in health or disease. We denominate these modes *laws*. The law of malarial fever is that the intermittent form shall be so predominant in numerical ratio, that the remittent cases should be looked upon as the exceptions, that is, the departures from type. I have in a previous lecture discussed the question of the relative frequency of quotidian and tertian cases.

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If we admit this proposition, it is perfectly apposite to enter into an investigation of the causes which determine the departures from type.

I do not hesitate to ask you to adopt the succeeding propositions as being those which, in my opinion, most nearly explain the causes of remittent cases.

First.—Increased intensity of malarial intoxication, either from, *a*, the unusual quantity of poison received; *b*, more than usual toxic qualities of the poison; *c*, unusual susceptibility of individuals to the poison.

There can scarcely be a question in regard to the influence of the first and third of these minor propositions in determining graver attacks of malarial fever. I must say, however, that as it respects any knowledge we possess of altered qualities of the malarial poison, we are now, and in all probability will long continue to be, at fault. We can only assume that, like other organisms (and it appears to be such), one generation or crop is likely to differ in its constituent qualities from other generations or crops.

It is undoubtedly to one or the other of these causes we must attribute the fact that cases of remittent fever are relatively more numerous in certain malarial localities, especially those situated in the tropics, where frosts do not occur to interrupt its continued evolution.

Second.—Another cause of remittent attacks is the concurrence of inflammations. If any form of acute inflammation complicates a case of intermittent fever, the febrile movement at once assumes a continuous type, for that fever which accompanies inflammations persists as long as the exciting cause is active.

Third.—Intermittent attacks may become continued in type from accumulations of secondary poisons in the blood. It is not improbable that this may be reckoned as a very common cause of the conversion of intermittent into remittent.

Fourth.—The natural history of intermittent attacks shows a marked and almost constant tendency to an increase in violence with each recurrence of the paroxysms. This aggravation is likely, not only to increase the degrees of temperature records, but also to shorten the period of intermission until the fever becomes persistent.

It appears to me that this mode of study ought to be of much practical value in directing your attention to those variations in the ordinary morbid processes of the malarial poison, which can in many cases be anticipated and prevented; and in other cases met by such appropriate treatment that restoration of the intermittent type shall simplify those cases which may not be summarily curable. When I first entered upon the practice of medicine, I am sure that I occasionally had some dozen cases or more, of these remittent attacks under treatment at one time. I now believe that they were principally due to a failure to cure intermittent forms, because of neglect or improper medication during the earlier periods of attacks. I generally found that attempts at cure had been made by non-professional persons. The main feature, if not the sole feature, of their practice, consisted in repeated purgation. The purgative which stocked every family chest was "Cook's Pills," consisting of one grain each of calomel, rhubarb, and aloes. It was customary to give from four to six of them at one dose, to be repeated once or twice daily, until the fever declined to that point which was supposed to render the preparations of cinchona admissible. It was then not only the popular idea that cinchona should not be given during fever, but it was one held by nearly all practitioners of medicine. But I have somewhat unintentionally gone into this digression.

I need not occupy much of your time in portraying the symptoms of this form of fever. You notice this patient had scarcely any symptoms common to typhoid fever. His bowels were costive—scarcely at all tender, or tympanitic; no ileo-cæcal gurgling or soreness; no marked nervous ataxia or delirium, and certainly no rose spots. This is not always the case. Indeed, I may safely say that it is so much the rule for bowel irritations to complicate remittent fever, that the physician should be upon his guard in his repetition of cathartics. I have seen patients die by exhaustion from excessive diarrhœa. I have also seen deaths occur from entero-peritonitis, and again have seen more than one death from intestinal hemorrhage when typhoid fever could be positively excluded. Notwithstanding these facts, we must not, from any analogy of symptoms in certain cases of remittent fever with those of typhoid fever, allow ourselves to be led into those common errors of diagnosis which classify them as examples of the latter disease.

It is proper enough to say that your remittent cases have assumed a typhoid condition, but to say they have "run into typhoid fever," as is too frequently done, is very wrong. It is a wrong to medical science, and a wrong and reproach to sanitary science, which demands that confusion in regard to the presence of communicable diseases, shall be carefully avoided.

Let me now lay before you the methods of treatment which my long and large experience has taught me to consider the best which can be adopted.

When called for the first time to a case of continued malarial fever, the leading indication should be to secure cinchonism. This should be attempted in any stage of the disease or condition of the patient. You must not trust to small doses of quinine, but employ it in sufficient quantity to fully test its therapeutic value.

If the departure from type is due to either of the causes stated under the first proposition, cinchonism may at once prove curative. I have seen excessive temperature abated, the dry skin become bathed in healthful perspiration; the tongue grow moist; the delirium cease, and the patient enter at once upon convalescence after a single saturation with quinine. If inflammations are present, you should not expect quinine to arrest them. But they are not in any manner prejudiced by its use; on the contrary, the antipyretic effect of this drug must exert a greater or less salutary influence over local inflammations.

If the departure from type is due to secondary blood impurities, the expectations of directly curative effects of quinine are also lessened, but by a judicious combination with some eliminant, we may meet the double indication of depuration and cinchonism.

The case now before you is probably classified with those which owe their departure from type to secondary blood impurities. The costive bowels, sallow and almost jaundiced skin, the fevered tongue and loaded urine, all indicate that this conclusion is correct.

You will observe that, in this instance, calomel and soda were administered, and their cathartic effect was waited for before prescribing the antiperiodic. It is only in rare instances that I delay the exhibition of quinine to await the action of preparatory medicine. This patient presented symptoms exceptionally favoring such a course of medication. The indications for depurative remedies appeared to be paramount. No injury seemed likely to ensue from a delay of cinchonism, as no excessive fever or other threatening symptoms were present. Each separate case calls for the exercise of good judgment, and a variation of treatment to suit the exigencies present.

In the great majority of cases which I have observed, I have thought it necessary to combine antiperiodic and eliminant treatment. Quinine may be given combined with blue mass, in the proportion of five or ten grains of the latter to every scruple of the former; or competent doses of calomel may be alter-

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nated with the doses of quinine. The only precaution you need observe is in not exciting so much intestinal peristalsis as to carry your quinine out of the system before it has been appropriated. I had at one time a medical practitioner living neighbor to me, who treated his malarial cases with a mixture of sulphate of magnesium, quinine, and tartrate of antimony. You can scarcely imagine the unpleasant complications this treatment occasioned.

If the bowels are already inclined to be irritable, do not hesitate to combine enough opium with your cathartic to prevent too much energy or quickness of operation.

In quite a considerable proportion of the cases I treat, sufficient elimination is produced by bitartrate of potash given in ʒij doses to an ordinary tumblerful of lemonade; the patient being instructed to drink small quantities as often as thirst prompts a call for fluids.

In a ratio of grave cases differing in different years of epidemic prevalence of malarial affections, prompt cure will follow the treatment I have indicated. In another ratio no good results will be seen.

You observe in this patient's case the temperature continued to rise for three days, although ninety grains of sulphate of cinchonidia had been administered, preceded by calomel and soda. Whenever this failure occurs I advise you not to continue the quinine, increasing the doses in amount and frequency, as is often done, but stop it altogether. Persistence in its use under such circumstances is likely to produce aggravated physiological effects, and as the hindrance which prevented its curative action at first, is probable still to exist, it is better to await conditions of the system more favorable to its repetition. My rule is to place the patient under symptomatic treatment. As the fever is generally the most formidable symptom, we must carefully mark its course. The temperature should be recorded every six hours. Any intelligent person can be instructed to take observations in your absence.

The patient should be frequently supplied with cool drinks, rendered palatable by the addition of lemon, or of some of those home-made beverages which are known under the name of "shrub," such as raspberry, currant, the juice of the pineapple, or watermelon. Neutral mixture with small doses of digitalis and acetate of morphia may be given every third or fourth hour. The surface should be sponged often either with cold or tepid water. The hair should be cut; the bedding changed often, and the room kept cool and well ventilated. The diet should be of farinaceous articles, fruits, and milk, unless some ataxic symptoms call for meat extracts and stimulants. Insomnia should be carefully watched for, and relieved by chloral hydrate or opium.

Under this expectant treatment it is rare, indeed, that the oscillations of temperature do not, in the course of a very few days, become more marked, the change being most observable in the descent of the lower angles of the curves. As soon as this occurs, tentative doses of quinine should be resorted to. It is better to give it in solution, and in quite positive quantities. If you catch the patient when his temperature is at a decidedly lower range, give five to twenty grains of the salt at one time. After this watch its effects with sedulous care. If the oscillations of temperature are overcome by the quinine, everything will be well. If, on the contrary, they are not governed by it, resume your expectant medication, and await another opportunity to invoke the aid of antiperiodics.

Gentlemen, I have travelled this difficult road so often that I may venture to speak with some authority. But at the same time, I cannot close this lecture without reminding you, that in treating continued malarial attacks, while your own good sense must be the most important factor of success, there is an old Latin phrase which may give you important aid in its exercise, "*in medio tutissimus ibis*"—the middle and careful course is the safest.

ORIGINAL ARTICLES.

THE MICROCOCCUS OF GONORRHŒAL PUS.

SECOND PAPER.

BY GEORGE M. STERNBERG, M.D.,
SURGEON, U. S. A.

IN my paper published in the THE MEDICAL NEWS of January 20th and 27th, I give in detail the experiments which have led me to the conclusion that the infective virulence of gonorrhœal pus is not due to the presence of the micrococcus which is found in a certain proportion of the pus-cells, and which, so far as my observations go, is constantly present in the pus of *specific urethritis*. If I am right in my deduction that this micrococcus is an accidental parasite which has nothing to do with the special virulence of gonorrhœal pus, it is altogether probable that the same micro-organism will be found in the pus of *non-specific* urethritis. As this is extremely rare, I am not likely to have the opportunity of verifying the truth of this prediction, but mention the matter here in the hope that some practitioner who may have an undoubted case of this nature will look for the "*gonococcus*" of Neisser (MEDICAL NEWS, January 27th, p. 99) by the method which I have described (*loc. cit.*, p. 96). Evidence of this kind will, however, always be subject to the suspicion of a mistake in diagnosis, and the only satisfactory way of verifying the truth of the prediction would be to produce a urethritis, experimentally, by the application of some irritating chemical agent to the mucous membrane of the urethra. But if persons were found ready to place their urethræ at the disposal of science for this purpose, it would be necessary to guard against the criticism made by the reviewer quoted (*loc. cit.*) with reference to the experiment of Bokar upon six medical students, viz., that "the experiment would have been far more convincing if the dauntless three had been kept in solitary confinement for a week before or after the inoculation."

The most ardent devotee of science would hardly submit to this condition unless the question to be determined were one of paramount importance.

It is difficult to decide how much weight to give to the experiment of Bokar in the absence of detailed information with reference to the method of cultivation employed, especially as he is not known in this country as an expert in culture-experiments of this kind. The writer will therefore make no attempt to estimate the scientific value of the result reported, but if opportunity offers will repeat his own experiments, and will be quite ready to admit that the micrococcus present in gonorrhœal pus *is* the cause of infective virulence if he is able even occasionally to produce gonorrhœa by the introduction of a pure culture of this micrococcus into the urethræ of healthy persons.

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The object of the present paper is to call attention to a later claim which has been made in support of the hypothesis of Neisser, with reference to the etiological *rôle* of this micrococcus, based upon evidence of a different kind.

In the *Medical Record*, of December 16, 1882, I find the following (p. 687):

"Dr. Leistikow thinks he has confirmed, by a series of experiments, the discovery made by Neisser, of the presence of a special form of bacteria in gonorrhœal discharges. In the first stage of a gonorrhœa, when the discharge is thick and abundant, but few of the bacteria can be seen. They exist, however, in great numbers in the thin and scanty secretion of the later stages, sometimes even when the disease has existed over a year. In the treatment of gonorrhœa the author employs an injection of corrosive sublimate, which Koch has found most fatal to the various forms of bacteria. He uses a solution of 1 part to 20,000, 1 in 10,000 being found to be too irritating. In private practice a still weaker solution of 1 part to 30,000 is employed. The injections are made three times a day, and should be continued for three or four days after all discharge has ceased. The bacteria disappear, or are greatly diminished in number, after one day's use of the injections, but return again if the latter are discontinued too soon. Treatment by injections should not be begun until after the acute inflammation has subsided.—*Deutsche Medicinal-Zeitung*, Sept. 7, 1882."

This may appear, at the first glance, to be pretty strong evidence in support of the view that infective virulence is due to the presence of this micro-organism; but, as I shall show, the evidence given is in reality rather in favor of the deduction to which my own experiments have led me.

We are first informed that Dr. Leistikow thinks he has confirmed the discovery made by Neisser, of the presence of a "*special form* of bacteria in gonorrhœal discharges." But I have already shown (*loc. cit.*) that this micrococcus is identical morphologically with that found in urine undergoing alkaline decomposition; and since my paper was written, I have had under observation a micrococcus from quite a different source, which also cannot be distinguished by the highest powers from that found in gonorrhœal pus. A pure culture of the micrococcus referred to was obtained by inoculating a culture-fluid with pus from a deep-seated abscess—whitlow—at the moment of its escape from a deep incision. The micrococcus from this source, cultivated side by side with that from gonorrhœal pus, was under daily observation for weeks, and, as already stated, no morphological differences could be detected.

The claim, then, that the "*gonococcus*" of Neisser is "a special form of bacteria" cannot be sustained.

We are further informed that

"in the first stage of gonorrhœa, when the discharge is thick and abundant, but few of the bacteria can be seen. They exist, however, in the thin and scanty secretion of the later stages, sometimes even when the disease has existed over a year."

This corresponds with my own observations, but does not support the view that these micro-organisms are the cause of the "thick and abundant discharge" of acute gonorrhœa, in which they are "but few." The evidence offered in support of Neisser's hypothesis as to the etiological *rôle* of this micrococcus is, however, of another kind, and depends upon therapeutical experiments in which a solution of corrosive sublimate was used locally in the treatment of gonorrhœa. According to the observations of Leistikow, "the bacteria disappear, or are greatly diminished in number, after one day's use of the injections, but return again if the latter are discontinued too soon."

I have made numerous experiments relating to the germicide power of mercuric bichloride upon this micrococcus, and am able to say very positively that this reagent does destroy its vitality in the proportion used.[1] I am, therefore, quite prepared to believe that "the bacteria disappear, or are greatly diminished in number." But is the gonorrhœa cured?

If it is true that the urethral inflammation and gonorrhœal discharge are due to the presence of this micrococcus, the injections of corrosive sublimate should have a specific curative effect, as this reagent is fatal to the micrococcus in the proportion of one part to 20,000. But we are told that the injections should not be begun until after the acute inflammation has subsided, and no claim is made that the course of the disease is aborted by the use of these injections, which are "to be used three times a day and continued for three or four days after all discharge has ceased."

It will be admitted that evidence of this kind does not give very strong support to the hypothesis of Neisser, especially in view of the fact that gonorrhœa may also be cured by frequent injections of a weak solution of zinc sulphate (one grain to the ounce of water), whereas, this salt has no germicide power whatever, even in very much stronger solutions.

Thus I have recently demonstrated by experiment, that this very micrococcus of gonorrhœal pus retains its vitality and multiplies freely in a suitable culture-solution after exposure for two hours to the action of a twenty per cent. solution of the salt in question. The undoubted value of this remedy, therefore, as an injection in gonorrhœa must be due to some other cause than germicide power.

Before closing, I beg leave to call attention to the fact that some of the wood-cuts illustrating my previous paper (MEDICAL NEWS, January 27th) are not very satisfactory, for the reason that the engraver has given the micro-organisms represented very irregular forms and indefinite outlines. Fig. 6, especially, falls far short of fairly representing the group of micrococci multiplying in two directions, which are seen in the photo-micrograph from which this figure was copied.

Unfortunately, also, several mistakes have occurred in the references to these figures.[2]

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[1] *Vide* paper to be published in the April number of the *Am. Journal of the Medical Sciences.*

[2] Page 97, second column, thirteenth line, for 5 *read* 6; same column, third line from bottom, for 4 *read* 5; same column, fifth line from bottom, for 3 *read* 4.

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NOTES ON THE MANAGEMENT OF RINGWORM OF THE SCALP (TINEA TONSURANS).

BY ARTHUR VAN HARLINGEN, M.D.,
CHIEF OF THE SKIN CLINIC, HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

(*Concluded from page 298.*)

RINGWORM of the body is very apt to go along with ringworm of the scalp, and in examining a patient for the first time the body should be carefully looked over as well as the head. Also the surface of the body should be searched with care from time to time while the patient is under treatment, because scales and stumps of diseased hairs are always apt to be parting from the scalp, falling within the collar and dropping upon the neck, where, if they light upon suitable soil, they may sprout and grow and spread.

There is a good deal of difference in individuals as to the aptitude for catching ringworm. One may be in the midst of floating spores in the air of a school-room or public institutions where the disease is rife, without coming to harm from it, while another seems to offer the conditions needed for the growth of the fungus, which is continually springing up on some new part of the skin at the same time that, under treatment, it is being stamped out in another. In my experience, children with light, thin hair are more apt to show this susceptibility, while dark-haired children seem as a rule less prone to contract ringworm of the scalp, and are more easily rid of it when it happens to attack them. Weakly and scrofulous children are also much more prone to contract ringworm of the scalp in a stubborn form, and this lends an indication for internal treatment which experience shows to be useful. I refer to the employment of cod-liver oil, which is often brought into use with advantage in the treatment of chronic and inveterate ringworm of the scalp. A course of oil seems often to aid the external treatment to a marked degree. Arsenic I do not think is so useful; at least it has not proved of much benefit in my hands, though others speak of its advantages.

Although I do not intend in this article to go over the rather hackneyed subject of remedies for ringworm of the scalp, yet as a part of the management, I shall now mention some of the applications which have proved most beneficial in my experience.

Prominent among these is carbolic acid, which I use not only to destroy the parasite in the diseased patches, but also to act as a preventive in checking the spread of the fungus to healthy parts. For this purpose I use a mixture of one part of carbolic acid with three to six parts of glycerine. This is rubbed into the whole scalp, or into the entire scalp saving the affected patches, every day, and not only tends to put an end to the life of the fungus, but also prevents its spread from the patient to other persons. A carefully cleansed scalp becomes covered with fine epidermic scales as soon as it is dry, and these branny scales containing fungus are brushed off and float about in the atmosphere, a constant menace to persons in the neighborhood, to whom they may carry the contagion. For this reason a child suffering from ringworm of the scalp should not only wear a linen cap constantly, but should have the scalp constantly saturated with carbolized glycerine.

A stronger carbolized glycerine (one part to two or three) may be applied to the patches directly by means of the swab I have described above, or with a bit of flannel on the end of the finger. Glycerine has a good deal of penetrative power and it gets down to the roots of the hair very nicely, carrying the carbolic acid with it. I sometimes succeed in curing quite severe cases of ringworm of the scalp by means of carbolic acid alone, using the stronger solution to the diseased patches, and the weaker preventive fluid elsewhere over the entire scalp.

Occasionally I make use of a blistering fluid, especially when the disease is recent and tolerably extensive but superficial, and where the fungus has only penetrated the follicles a short distance. I have the cantharidal collodion made somewhat stronger than that usually sold, and paint several coats over the diseased patches on the freshly shaven scalp. I do not think it safe to paint too large a surface at one time, and therefore usually do not exceed three or four square inches at any one sitting. It will be found that in pulling off the crust after the blister has collapsed and dried, quite a large number of diseased stumps will come away, the roof of the dried blister serving to depilate to a certain extent. The milder carbolic wash may usually be applied immediately after the blister has been removed.

Another application which I use in more inveterate cases of ringworm of the scalp is the oleate of mercury. This is used in six per cent. strength, and is mixed with acetic ether in the proportion of seven parts of the oleate to one part of ether. It has remarkable penetrative power, and gets down to the very roots of the hairs more quickly than any other application with which I am acquainted.

There are many other parasiticides in use. Some of these are very effective, and, in any case where one thoroughly used fails, another can be used. The following may be named as most likely to prove useful in the majority of cases. Thymol, boracic acid, picrotoxin, iodine alone, or in combination with tar or sulphur, mercurial preparations, and chrysarobin. As the text-books teem with formulæ for the employment of these remedies, I will not describe the method of their use.

The proper management of a case of ringworm involves of course the prevention of its spread, and this presents, in some cases, a problem difficult of solution. It is better that children who have ringworm of the scalp should be completely isolated from their fellows. This, it must be remembered, does not mean anything like solitary confinement. Owing to the fact that tinea tonsurans does not attack adults, a child suffering with this disease may mingle freely with older persons without any danger to the latter, beyond the possibility of contracting ringworm of the body, which, as is known, is very readily cured. Where complete isolation is impossible, the usual precautions are of course to be taken.

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The promiscuous use of brushes, combs, towels, hats, etc., is to be guarded against. In addition, the patient should sleep in a separate bed, and, if possible, in a separate chamber. But the best means of isolation is to prevent the diffusion of the spores from the patient's scalp, and this may be attained by keeping it constantly saturated with the weaker preparations of carbolized glycerine above mentioned. The spores are thus kept from flying about in the air, as they will certainly do if the diseased scalp is allowed to become dry and scaly. The same application may be made to the scalps of other children who for any cause may be obliged to associate with the patient. In these the hair should be kept short, the scalp washed every day thoroughly, and an application of carbolized glycerine (one part to ten), made immediately afterwards. The patient should constantly wear a linen cap over the scalp, and the greatest care must be taken to disinfect, by dry heat, the various articles of clothing which cannot be boiled, or which it would be inconvenient to throw away.

The coat-collar is a very frequent nidus for the propagation of the ringworm fungus, because it is apt to rub against the scalp, and any stray scales dropping from the head are likely to light there. It should therefore be one of the points to be watched, and indeed if of cloth should be temporarily covered with some linen or cotton fabric which can be washed.

It should be remembered that ringworm in children not unfrequently originates from contact with domestic animals, particularly cats and dogs. In the management of such cases this cause of contagion should not be overlooked. Two little boys recently came under my care suffering from ringworm of the scalp, the cause of which remained a mystery until I ascertained that they were accustomed to pass hours of each day in a small hut which they had built in play, and where they lay for hours together each day in a bunk with a pet dog. The animal on examination proved to have "mange," in other words, ringworm.

It may be thought that in the foregoing remarks on the management of ringworm of the scalp I have gone too much into what appears to be trivial detail, but I am convinced that this is necessary, inasmuch as we constantly see failure to cure cases of ringworm where suitable and efficient remedies have indeed been prescribed, but where sufficient care has not been taken to have them properly applied.

The affection is a stubborn one, four to six months at least are required to effect a cure. In well-marked cases the friends and parents of patients should be told this beforehand to prevent misapprehension; a more favorable prognosis is almost sure to lead to disappointment. Where an apparent cure has been reached, the patient should still remain under the oversight of the physician for some months, and a very careful search should be made from time to time with a view to discover the presence of scurfy patches with broken-off hairs or the black dots marking diseased stumps.

A spontaneous cure sometimes occurs after the lapse of years, as the patient reaches adult life. The disease is rarely encountered in persons over twenty-one years of age.

CASE OF SUDDEN DEAFNESS FROM MUMPS.

BY GEORGE C. HARLAN, M.D.

THOUGH mumps has been frequently referred to as one of the causes of deafness, it is only recently that the clinical histories of a few such cases have been reported by Buck, Knapp, Moos, and Brunner. They may be found in the numbers of the *Archives of Otology* for 1882. In many text-books the subject is not even mentioned, and Brunner says that "Our experience on this subject is very small, and we have not been able to describe the exact clinical picture even, apart from the obscurity in which the pathologico-anatomical conditions seem to be involved." Knapp, also, observes that, "The clinical material for a comprehensive description of the affection, and for a discussion of its nosology, is still so scant as to encourage the publication of new observations." Thus encouraged, I have thought it worth while to report the following case, even if only to call attention more generally to the subject.

M. P., female, aged 23, states that three years ago she had mumps, and the day after the commencement of the attack there was a roaring sound in the right ear, and complete deafness on that side. There was no discharge, and no pain. For more than a month she was so dizzy that she could not walk in the street alone; there was an irresistible tendency to pitch forward, but she does not remember that the movement was more toward one side than the other. When in bed, she felt as if everything in the room were in motion, "like when you first come off a ship." There is still constant tinnitus, and the watch is not heard on contact; there is faint perception of the tuning-fork held on the mastoid, increased by closing the meatus; and it is also heard slightly for a few seconds when held close to the ear without contact. The external ear and membrana tympani are perfectly normal.

Toynbee wrote, long ago, that, "In these cases the nervous apparatus is evidently affected, as the deafness comes on suddenly, is usually complete, and, as a general rule, no appearance of disease can be detected in the meatus, membrana tympani, or tympanic cavity," and no one not determined to ignore the labyrinth entirely in aural pathology could, with the histories of the cases recently reported before him, locate the lesion in any other part of the ear. As there was no indication of cerebral complication in any of the cases reported, it may, perhaps, be conceded that the labyrinth is the seat of the disease. What is the nature of the disease, why it attacks the labyrinth, and how it gets there are, in the absence of post-mortem observations, still subjects of conjecture. The suddenness and completeness of the deafness point to rapid and copious serous effusion, and by most of those who have discussed the affection it is considered to be a metastatic one, similar to the well-known orchitis. Such an exudation might easily destroy

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the function of the delicate tissues in the labyrinth, and the subsequent disappearance of the vertigo may be attributed to the absorption of the fluid.

An interesting point in the case just reported is that a very slight, but certain, degree of hearing remained. Brunner says that the deafness is complete, and, according to past experience, is incurable; but Toynbee admits that the nerve is not necessarily wholly paralyzed, and that a very slight degree of hearing may remain. Knapp suggests that all metastatic affections of the ear need not necessarily result in total deafness, and that the affection may not be so rare as has been supposed, as many mild cases may have escaped detection. It is even quite possible that a decided degree of deafness, in one ear only, might fail to attract attention during the course of a painful disease, and hearing be subsequently restored.

HOSPITAL NOTES.

BOSTON CITY HOSPITAL.

Service of DR. W. H. THORNDIKE.

ABSCESS OF THE TIBIA TREPHINED.

(Reported by ROYAL WHITMAN, M.D., House Surgeon.)

THE patient, a man, twenty-nine years of age, entered the hospital October 9, 1882, with the following history: In 1874, without apparent cause, he commenced to have acute pain in the upper part of the right tibia; this was accompanied by more or less swelling and redness in the surrounding tissues. These symptoms passed away in about two weeks, though a certain amount of enlargement in the bone has persisted. He remained perfectly well until 1879, when he had a secondary attack. Since then he thinks that the bone has slowly enlarged, though he has had no pain or other symptoms until about eight weeks before his entrance to the hospital, when he again had sharp pains in the head of the tibia. These pains, which were deep-seated and boring in character, were worse at night, shooting up and down the leg. Since then he has gradually lost appetite, flesh, and strength, and has occasional night-sweats.

Examination shows the tissues over the head of the tibia to be tender, red, and slightly œdematous. About two inches below the tubercle is a point of localized tenderness. The head of the tibia is about one inch larger in circumference than that of the corresponding bone.

On October 9th Dr. Thorndike made a crucial incision over the point of greatest tenderness. The periosteum was found to be thickened and inflamed. This was retracted from the surface of the bone. The trephine (three-fourths of an inch in diameter) was then applied, and at a depth of three-fourths of an inch from the surface pus was reached, and about one-half an ounce was evacuated. The cavity of the abscess was then thoroughly cleaned with carbolic solution. The operation was done under spray, and the wound was dressed with carbolized gauze. After the operation the pain was almost completely relieved. The patient rapidly gained flesh and strength, and was discharged from the hospital in three weeks, with but a small opening from which a small amount of pus was discharging. He is now almost entirely well.

MEDICAL PROGRESS.

RELATION OF TUBERCLE BACILLUS TO PHTHISIS.—DR. C. THEODORE WILLIAMS publishes the results of the examinations which have been carried on in the Brompton Hospital for some months with a view to test Koch's conclusions. The number of patients whose sputum has been tried is one hundred and thirty. The method used was that of Dr. Heneage Gibbes, the staining being accomplished by his magenta aniline solution and chrysoidin; in some later slides methylene blue was substituted for the chrysoidin. The specimens tested were either taken from the sputum collected during the twenty-four hours or from that expectorated in the early morning, and the rule adopted has been in the case of a negative result to repeat the examinations two, three, or four times, so as to insure accuracy. Twenty-one patients were examples of various lung affections other than phthisis. In no one of these did the sputum contain bacilli. The one hundred and nine phthisical cases consisted of acute and chronic forms, and included instances of tuberculo-pneumonic phthisis, of scrofulous pneumonia, of fibroid, catarrhal phthisis, and a large number of cases of chronic tubercular phthisis. Cavities were detected in one or both lungs in eighty-one of these patients, nine were in the stage of early consolidation, the rest were undergoing softening, or were cases of old tubercular induration with emphysema or fibrosis. In the one hundred and nine phthisical cases he detected bacilli in one hundred and six, and even of these three, in one it could not be affirmed with certainty that they were absent.

So far his results agree with those of previous observers as regards the specific character of the bacilli, and the fact that none were found in the cases of bronchiectasis, in which the expectoration was extremely fetid and abundant, separates the tubercle bacillus from any of the numerous organisms connected with fermentation and decomposition.

Most of the consumptive patients had cavities, but nine were cases of early consolidation. These were all cases in which both the history and the physical signs forbade any suspicion of a cavity, and he offers them as a proof that the bacilli are found in connection with tubercle formation, and not only with softening and excavation.

Temperature observations were carefully taken in all the one hundred and nine cases, and in fifty-one pyrexia, ranging from 100° to 105° F., was present at the time of the examinations. In some of these pyrexial cases the bacilli were very abundant, but in others, though the sputum was abundant, bacilli were few, this in spite of numerous careful observations.

With regard to the proportion present during periods of quiescence or arrest of the disease, he should regard their total disappearance as an eminently favorable sign. Out of four cases of contracting cavities where very favorable changes were progressing, bacilli were detected in three, but in small numbers; in the fourth case, above mentioned, none were found. Therefore, we are hardly justified in concluding that there is any definite ratio between activity of disease and number of bacilli, though as a rule they are few in cases where the disease is quiescent.

He has suspended glass plates covered with glycerine in the extracting flues of the Brompton Hospital, and thus subjected them to a stream of air with a velocity of three hundred or four hundred feet a minute issuing from numerous wards containing consumptive patients. In this way he sought to obtain a concentration of the exhalations, and on testing the plates they were found to contain abundant bacilli.

While, however, the bacillus must be duly considered

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in the origin of phthisis, it may be regarded as a more or less exciting cause of the disease, requiring a previous weakening of the constitution to enable it to act.

In the discussion which followed the reading of this paper before the Medical Society of London, DR. HERON said that the bacillus had now been found in many organs, and in the living subject, in the sputum, in the urine, in an ulcer of the tongue, in lupus, and in an unopened knee-joint. He had found the bacillus himself in fifty-four cases of phthisis, and he believed that practically it would always be found in cases where physical signs of phthisis existed. But in some of these cases the physical signs were so slight that he should have hesitated to make a diagnosis without the aid of the bacillus. As regards prognosis, he believed a few bacilli betokened a chronic course; a large number and persistence of them indicated a rapidly fatal course. The same results had been obtained by Balmer and Fraentzel. In rapidly sinking cases the bacilli were found in large numbers, often grouped into masses. This grouping indicated an unusually rapid course, and in one or two cases it had preceded by a day or two an aggravation of the symptoms. Some observations appeared to show that the bacilli might appear before physical signs were manifest. In some cases the bacilli, which had been present in moderate amount, had disappeared from the sputum for several weeks. In such cases he thought that the patient might be considered to be in a fair way of recovery. Heredity he had found to exist in thirty per cent. of his cases at Victoria Park Hospital during four years.

DR. HENEAGE GIBBES directed attention to two points: first, the difference in the structure of miliary tubercles in the lungs and the relation of the bacilli to those of different forms; and, second, the presence of bacilli in the smallest or commencing tubercles. He had examined a large number of lungs affected with the reticular form, and had only succeeded in finding bacilli in three cases, and these in small numbers, distributed through the reticulum. In the non-reticular form, however, he had invariably found bacilli in large numbers in the caseous centre. Dr. Gibbes also pointed out that the bacilli were to be found in the smallest tubercles. A lung may be stuffed with tubercles, each one containing thousands of bacilli, and yet the patient will die before the destructive process has gone far enough to cause any of them to be ejected with the sputum. Thus there were two forms of fatal tuberculosis in which no bacilli could be found in the sputum. —*Lancet*, February 24, 1883.

THE ACTION OF QUININE AND CINCHONINE.—M. BOCHEFONTAINE has found from experiments made in VULPIAN'S laboratory that the action of these two substances is very much the same, though quinine is less of a convulsivant than cinchonine. On the other hand, quinine is the most poisonous. As regards the elimination of these alkaloids, he has found that when injected hypodermically they may be found in the vomited matters, showing that they may be eliminated by the stomach. It is well known that quinine is much the most efficacious therapeutically.—*Revue Scientifique*, February 24, 1883.

THE VOMITING OF PREGNANCY.—MR. BROCK discards the numerous theories which have been proposed to account for obstinate vomiting in pregnancy, and believes that it arises simply and purely from an idiosyncrasy in the individual. Vomiting, of course, may be aggravated by other conditions present, such as undigested matters in the alimentary canal, etc.

He thus summarizes his principal reason for coming to this conclusion.

1. That obstinate vomiting occurs in multiparæ, where the uterine tissues are lax, and where the os is soft, easily dilatable, and even patent enough to admit the tips of two fingers. This causes him to reject the theory held by Bretonneau and Barnes.

2. That obstinate vomiting is absent in the majority of cases where there is a rigid state of the os, and where one would almost expect it invariably to be present, if the cause were that assigned by Dr. Barnes.

3. That obstinate vomiting is often absent in flexions and distortions of the uterus, and often present where there are no flexions or distortions. This would not be likely if Dr. Hewitt's theory were true.

4. Obstinate vomiting is often absent in inflammatory conditions of the uterus, and present when there are no inflammatory conditions. This ought not to be the case if Dr. Bennett's theory be correct.

5. Because he believes a parallel condition is to be seen in other affections clearly influenced by the individual's neurotic constitution; for instance, obstinate sea-sickness, the occasional vomiting that takes place in pseudocyesis, the proneness to convulsions in certain children whenever ill; or, to take a specific case, the vomiting simulating the obstinate vomiting of pregnancy, in a non-pregnant woman, in whom the uterus was normal.

6. Because there is no definite line to be drawn between the ordinary cases of sickness in pregnancy and the more severe cases.—*Glasgow Med. Journ.*, March, 1883.

THE PATHOGENY OF CYSTS OF THE IRIS.—PROF. MASSE, of Bordeaux, reported in 1881 some experiments in which he had caused true cysts to develop in the iris in rabbits by grafting on the iris fragments of conjunctiva and skin. In some recent experiments he has also seen cysts develop in the iris in consequence of grafts of thin fragments of corneal substance. His method was to remove a thin layer of cornea by means of a Beer's knife from the lower border of the cornea, then to puncture the cornea at its upper border and to introduce the fragment, which was about four millimetres long by three broad, into the anterior chamber of the eye. The corneal fragment at once adheres to the iris, soon loses its transparency, and becomes vascular from the formation in it of vessels derived from the iris. Occasionally numerous cysts develop on the iris in the neighborhood of this graft, and may, he thinks, be also attributed to corneal tissue abnormally implanted on the iris.

He thinks that these experiments will prove that ordinarily the production of cysts of the iris is due to the penetration of the cornea by some cutting instrument, and the accidental carrying of some corneal, skin, or conjunctival fragment to the iris, to which it adheres, and then leads to the formation of cysts.—*L'Union Médicale*, February 24, 1883.

MYOMOTOMY.—A recent number of the *Zeitschrift f. Geburtshülfe und Gynäkologie* contains an article by PROF. SCHROEDER, of Berlin, on the extirpation of uterine fibroids, or myomotomy, as he prefers to term it. Although hitherto in this operation better results have, as a rule, followed the extra-peritoneal than the intra-peritoneal treatment of the pedicle, Dr. Schroeder thinks that, as in ovariotomy, the extra-peritoneal method will have to give way to the intra-peritoneal, and that the operation will not have been perfected until a satisfactory method has been devised of securing the pedicle in such a manner that it may with safety be left in the abdomen. The plan which Prof. Schroeder has followed is briefly this: First he ligatures, and then divides, the broad ligaments; then he cuts through the uterus, first peritoneum, then muscular tissue, in such a manner as to leave a strip of

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peritoneum like a frill around the muscular surface of the stump. Then the surfaces of the stump are brought together; first the mucous membrane is united by sutures which are cut short, then the surfaces of muscular tissue are firmly secured in contact by sutures not involving the peritoneum; and finally the projecting ring of peritoneum, which has been left for the purpose, is brought together over the stump. An elastic ligature is put round the cervix before cutting away the uterus, and removed when the suturing of the stump is complete. If the tumor is so situate that it can be removed without opening the uterine cavity, of course the proceeding in simpler. Prof. Schroeder has operated sixteen times for uterine myoma, with thirteen recoveries. Of the three deaths, one took place from hemorrhage from the pelvic cellular tissue, one from sepsis, and the other was a case of Martin's operation.—*Med. Times and Gazette*, March 3, 1883.

THE BLOOD-PRESSURE IN MAN.—At the meeting of the Vienna Society of Physicians, held February 16, 1883, PROF. ALBERT demonstrated some blood-pressure curves which he had made on a man in whom amputation of the leg was performed. Before performing the operation the tibial artery was exposed, and a canula inserted and connected with a manometer, and the tracings were made on the kygmographion. The duration of the operation was only prolonged one minute by this experiment, and the course of the wound was not interfered with in the slightest. Some new and interesting results were obtained by this observation. Thus he proved that the blood-pressure was immediately greatly elevated by the assumption of the erect position of the individual (when narcotized), thus disproving the deduction of Marey made from experiments on the lower animals. No respiratory curves could be detected in the tracing. The absolute pressure corresponded very closely with the theoretical assumptions.—*All. Wiener Med. Zeit.*, February 20, 1883.

BROMIDE OF ETHYL DURING LABOR.—M. LEBERT (*Lyon Méd.*, 1883) who has been employing bromide of ethyl largely in midwifery cases, accords it great value in simple confinements. It diminishes and finally suppresses the pain, without having any hurtful effect upon the mother or upon the child. He states also that under its influence labor is more rapid and surgical interference rendered less necessary. The subsequent recovery he believes to be speedier, and the tendency to flooding much less than when the drug is dispensed with.—*Glasgow Med. Journ.*, March, 1883.

RICKETS AND SYPHILIS.—Although some physicians have attributed to inherited syphilis an important part in the production of rickets, it is certain that this opinion is erroneous. Nevertheless, there is nothing incompatible in the two diseases; they may, unquestionably, coexist, and it is probable that the malnutrition due to the specific disease may be a potent factor in the development of rickets in such a case. M. Lannelongue has recently had the opportunity of examining the organs of a boy, aged three years, who presented the symptoms of both diseases. There was an undoubted history of syphilis on the maternal side. The child presented a characteristic rash about the bottom some days after birth, which lasted a long time, and was not treated. Some time later it suffered for six months from snuffles. The signs of rickets in the osseous system first appeared in the right humerus, then in the femur, and afterwards became general. At the autopsy areas of gray consolidation, having the aspect of gummata, were seen in the lungs. The bronchial glands were of a yellowish cheesy appearance, quite different, the report says, from that of tubercular infiltration. The liver was small, and its fibrous portions were thickened; the spleen was in a similar state. The osseous lesions were those of rickets. The epiphyses were soft and contained much "tissu spongoïde." Large oval swellings were present on the shaft, which, on section, showed a piece of atrophied ancient bone surrounded by much of the sponge-like tissue. The bones in places were seen to have suffered incomplete, but never transverse fracture. M. Lannelongue wisely refrains from drawing any positive inferences on the subject of the relation between syphilis and rickets.—*Lancet*, March 3, 1883.

DILATATION OF THE NECK OF THE UTERUS.—M. CHASSAGNY, of Lyons, in a communication made to the Paris Academy of Medicine, describes his method of thoroughly plugging the vagina, and producing rapid dilatation of the neck of the uterus. He places in the vagina a bladder, with which an India-rubber tube is connected; this, with the help of a siphon, conveys into it the water contained in a receptacle placed about two feet and a half higher than the pelvis of the patient. The bladder becomes distended by the water, and soon fills the vaginal cavity. This brings on abundant secretion, and induces energetic contractions, resulting in the physiological dilatation of the os uteri, which is quickly completed by the mechanical action of the bladder. The bladder is placed in the vagina, and the occlusion of the vulva is obtained by means of an apparatus which M. Chassagny calls the *Elytroptérygoïde* (wings in the vagina). It consists of a cylindrical speculum, which holds the badder; this is forced out as the water enters, and the act of distention separates the valves of the speculum, which, resting on the sides of the pelvis, prevent the expulsion of the apparatus and of the bladder. M. Chassagny mentions, in his pamphlet, several instances of induced premature labor, in cases of contracted pelvis, obstinate vomiting, eclampsia, etc. M. Chassagny describes two cases of vicious insertion. In both cases, he induced labor before the natural period by having recourse to rapid dilatation. There was not the slightest hemorrhage, and two living infants were born. In another case, where the mother was in the last stage of suffocative catarrh, M. Chassagny effected, in half an hour, the safe delivery of a living child. The mother rallied for a few moments only. In post-partum hemorrhage, the bladder, by completely filling the uterine cavity, closes the openings of the vessels, and, by artificially restoring the pregnant state, determines uterine contraction. The water in the bladder slowly flows away, until the uterus is thoroughly contracted.—*British Medical Journal*, March 3, 1883.

LAPARO-COLOTOMY FOR REMOVAL OF A FOREIGN BODY.—At the last German Surgical Congress UHDE (*Beilage z. Cbl. f. Chir.*, No. 29, 1882) showed a wooden tool he had removed from the left colon of a man, aged 25, by laparo-colotomy. The tool was one used for sewing sacks, and measured nine and one-quarter inches in length, with a circumference at its thicker end of three and one-half inches. The patient, an inmate of a house of correction, had pushed this into his rectum on the 1st of June, 1882, and left it there. On the 25th of June a sudden movement of the body was followed by abdominal pain, and he found that the tool after that was not so easily felt from the outside of the abdomen as it had previously been. In July he suffered from feverishness, diarrhœa with bloody evacuations, tenesmus, and difficulty of micturition. In October there were rigors, with severe pain in the left hip and thigh. The pain increased so much that on 6th of April, 1882, he came to the hospital at Braunschweig for relief. At that time the foreign

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body could be felt through the abdominal parietes to the inner side of the left antr. supr. spine of the ilium. On the next day an unsuccessful attempt was made to reach it by introducing the hand and part of the forearm into the rectum. On the 13th of April an incision was made in the left linea semilunaris, through which the foreign body was felt within the descending colon, jammed between the last rib and the sacrum so firmly that the colon was only brought to the wound by considerable traction. The piece of wood was removed through an incision in the gut nearly one and one-half inches in length, and this incision was closed with silk sutures. The operation was performed antiseptically, and, in spite of considerable vomiting and hiccough during and after the operation, the patient made a good recovery.

Similar operations, both successful, were performed by Reali in 1848, and by Studsgaard in 1878. In the former case the foreign body had been in the bowel for nine days, in the latter for twenty-four hours. In the present case it had been there for three hundred and seventeen days.—*Glasgow Med. Journ.*, March, 1883.

EXTIRPATION OF THE LARYNX.—J. F. COENEN (*Inaug. Diss.*) publishes an analysis of thirty-six cases of extirpation of the larynx, extracted from the well-known works of Schüller and Foulis, to which four new cases of Tilanus, Völker, and Hahn (two) are added. To this may still be added, one by Caselli (*Centralb. f. Chirurg.*, 1871, p. 159), one by Jochelson, one by Zeissl (*Centralb. f. Chirurg.*, 1882, pp. 420, 423), and two not yet published, making a list of forty-one cases. A report is given of the case of Tilanus, of Amsterdam, in which the operation was performed on a man, aged 51, on account of carcinoma. Death occurred in thirty-six hours after the operation, from collapse.—*Centralb. f. Chirurg.*, August 26, 1882.

IODOFORM IN SYPHILIS AND PHTHISIS.—PROFESSOR SCHNITZLER recently read before the Vienna Society of Physicians the notes of a case of syphilitic ulceration of the soft palate, tongue, pharynx, and larynx, complicated by tuberculosis, in which local treatment with insufflations of iodoform produced the most satisfactory results; the perforation of the soft palate became entirely healed, the swelling around the arytenoid corpuscles was reduced, and the tubercular infiltration of the lungs certainly was diminished. He also reported a second case of tuberculosis of the lungs and larynx, in which insufflations of iodoform, continued for five months, appeared to have no influence on the progress of the pulmonary disease, but the pain and irritability of the larynx, as seen in the hoarseness and cough, were decidedly improved.—*Wiener Med. Presse*, February 25, 1883.

PNEUMATURIA.—In two recent numbers of *La France Médical*, DR. GUIARD proposes the term "diabetic pneumaturia," to denominate a condition which he has observed in four cases of urinary affection in the male, complicated with glycosuria. This condition consists in an emission of gas from the bladder, and is said to be independent of any communication with the alimentary canal. The presence of the gas, which has been conjectured, but not yet proved, to consist chiefly of carbonic acid, is explained by the supposition that the glucose has undergone a process of fermentation in the urinary bladder. The escape of the gas occurs in an irregular manner during some part of the act of micturition, and may give rise to a gurgling noise. The existence of the fluid is manifest by no symptoms or physical signs apart from those significant of the associated disease. It has been thought by older observers that the mucous membrane was capable of exhaling gases, but that must be regarded as very problematical. Again, the introduction of air from without during the process of catheterism, especially where the bladder is hypertrophied and dilated, has been assigned as a possible explanation. Dr. Guiard has not been able to satisfy himself of the existence of the torula, nor of the usual products of the alcoholic form of fermentation. There seems to be no obvious reason why the torula should not be introduced from without, by means of the catheter, but until such an occurrence is proved, and until it is made more clear what the nature of the gas is, there can be but little use in speculating on the subject, which, under any circumstances, will hardly be regarded in any other light than in the nature of a clinical curiosity.—*Lancet.* March 3, 1883.

PRACTICAL APPLICATION OF KOCH'S DISCOVERY.—DR. GAIRDNER, of Glasgow, is of opinion that the practical applications of Koch's discovery are to be looked for chiefly in two directions. First, in that of prevention. "This discovery," he remarked at the Glasgow Medical Society, "imposed on medical men the necessity of looking to the observance of the most scrupulous cleanliness. They must have clean hospitals, clean wards and walls, clean rooms and floors. More than ever must this now be the order of the day. They must keep in view that no man was safe unless he got everything around him as clean and as pure as could possibly be managed. Another possible direction in which what they had learned might be applied (though the question was so obscure that probably even Koch would not push it), was in making experiments to ascertain whether the tubercle-bacillus could be cultivated into a milder form. Were this possible, the question might arise whether, as in the case of small-pox and anthrax, the milder form might be utilized as a prophylactic against the more virulent form. In the matter of cure, too, attempts must be made to apply the discovery. For the next year or two, there would be a run on the indiscriminate use of antiseptics in the treatment of phthisis; and probably this would result in disappointment. But this ought not to discourage them, as they might feel sure that, whatever residuum of utility there existed in the antiseptic treatment of phthisis, would eventually be made clear."—*British Medical Journal*, March 3, 1883.

THE VASO-MOTOR FUNCTIONS OF THE SYMPATHETIC.—MM. DASTRE and MORAT have made some new researches on the tonic and inhibitory functions of the sympathetic ganglia, and their relations to the vaso-motor nerves, of which the following are their conclusions: The ganglionic masses situated in the arterial walls have for their function the permission of an antagonism between the dilator and constrictor nerves; and while the inhibitory energy is mainly generated in these cells, the ganglia of the sympathetic system share with them the property of developing vaso-inhibition.

Thus, the superior cervical ganglion exerts a constrictor action on the vessels of the bucco-facial region. The inferior cervical ganglion and first thoracic ganglion exert a constrictor influence on the vessels of the auricular region: this action is reinforced by the constrictor nerves coming from the spinal cord through the third, fourth, and fifth dorsal nerves and their communicating branches. In opposition to this function, however, these same ganglia receive dilator nerves through the eighth cervical and first and second dorsal nerves, and this dilator influence predominates over the constrictor power; for stimulation of the communicating branches dilates the auricular vessels through the local peripheral ganglia.—*Revue Scientifique*, February 24, 1883, and *Gaz. Hebdomadaire*, February 23, 1883.

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SATURDAY, MARCH 24, 1883.

THE GERMAN CHOLERA COMMISSION.

THE Cholera Commission for the German Empire, which held its first session in Berlin in the summer of 1873, has just recently finished its labors. Prof. Pettenkofer, who was a member of the Commission, has made use of the occasion to review some of the more important results of the investigations, especially those which have a bearing on the so-called fungus theory (Pilz-Theorie). Credit is due Prof. De Chaumont for a translation of this important paper. The facts set forth by the Commission seem to leave no room for doubt that the causation of cholera depends on the operation of some of the lowest forms of life, though the discovery of the disease-poison has not yet been accomplished. In the opinion of Pettenkofer, cholera is an infectious disease of the miasmatic class, and its cause depends on conditions altogether external to the body affected (ectogenous).

While the *local* or *topical* view has been generally accepted by the Commission, there is a difference of opinion as to the manner in which the cholera-poison is propagated outside the body. Hirsch supports the hypothesis, "that from the cholera patient an infectious substance is actually thrown off, which, however, is not yet capable of acting directly as a cholera-poison, but only obtains its specific infecting influence after it has undergone a certain change, outside the system of the patient himself, and under the afore-mentioned external circumstances, either upon or in the soil (or a *succedaneum* of the soil)." But Pettenkofer prefers the other hypothesis, namely, "that the reproduction of the cholera-poison takes place quite independent of the cholera-stricken individual (as such), seeing that it may attach itself to persons, sick or well, or to other objects, through the instrumentality of which it may be carried from place to place, and wherever it finds appropriate conditions for its reproduction it may light up an epidemic."

That the disease has a certain relation to human intercourse is admitted, but that it shows a preference for places along the lines of railways does not appear to be borne out by the facts. Contact with the sick or mere intercourse with cholera-stricken places does not lead in itself to the spread of the disease; it is the locality to which the disease-germ has been brought, and in which favorable conditions exist for its propagation, that is chiefly concerned in the extension of the disease. Cholera cannot therefore be said to be a contagious disease in the strict sense of the term.

The water theory, which has so many zealous supporters in England, has been cast aside as untenable, at least the labors of the Commission have developed no facts which help to defend it. Unwholesome drinking water may favor the spread of the disease, but to it no greater influence is attributed than to bad food, or bad clothing. An abundance of pure drinking water is therefore insisted on only upon general hygienic grounds.

Pettenkofer is a firm supporter of the parasitic theory, and he considers himself sustained by the results of the work of the Cholera Commission in the belief that the poison of cholera is an organism which is spread by intercourse with places in which the disease is endemic or epidemic. The poison, when brought into other localities without being deprived of its active qualities, can be reproduced only when it finds in such places a suitable substratum or nidus, which is to be looked for in the soil, and serves as its nutriment or host.

The conclusions of the Commission in reference to the prophylactic measures suggested by the investigations, are of the highest practical value. The recommendations are as follows: "Of all the measures which may be applied to the prevention and combating of cholera, those take the first place which have for their aim the improvement of general sanitary conditions; all specific measures against cholera will prove unavailing, unless we pay the strictest attention in inhabited places to the purifying of the soil from organic and easily putrefying refuse, to the drainage of the soil, to the constant flushing of the sewers, to the frequent emptying of cesspits, to the careful inspection of dwellings, and closing those that are really hurtful, the provision of pure water both for drinking and other domestic purposes, and the like." The Commission expresses here the united opinion of the most experienced physicians, when it says, that the strictest attention

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to all the measures demanded by public general hygiene offers the best protection not only against cholera, but against all other epidemic diseases; but that those measures will be successful only on condition that they are followed out continuously and at all times; for it is a fatal error to imagine that having recourse to them only at the approach of an epidemic will ward off the incursions of disease.

PREHISTORIC TREPHINING.

WHEN La Motte, in 1705, first treated epilepsy by trephining, he little thought that he was but reviving a prehistoric operation. Epileptics, and the "daft," as all who in their "teens" have read Cooper by the furtive midnight-oil well know, were objects of awe, and, perhaps in an earlier age, of veneration; and naturally fragments of the skulls of such persons very likely would be prized as amulets, protective against these and similar diseases. Moreover, the ignorant and degraded peoples of the Stone Age would scarcely discriminate between epileptic and ordinary convulsions, especially in children, and would be apt to attempt to remedy both by like means.

As early as 1868 M. Prunières discovered in the dolmens of La Lozère round pieces of human skulls, which he named "rondelles," or "cranial amulets," and made them the subject of subsequent communications both to the French Association for the Advancement of Science and to the Paris Anthropological Society. Various skulls also were found, which had evidently furnished such fragments. The shrewd eye of Broca, however, quickly observed that the smoothly rounded and bevelled edges were not the result of artificial polish, but of natural cicatrization, and that the skulls had been trephined in many cases long before death. He pointed out that they were not congenital, for they were not the normal symmetrical parietal foramina, nor were they the result of war or accident, since none existed in the forehead, nor were their shape or size consistent with the rude weapons of that period. Moreover, no evidence of fracture or depression was to be seen, such as would be inevitable were they of such origin. And though the skull discovered two years since by M. Parrot shows evidence of disease for which fronto-parietal trephining was done, yet this is a unique exception.

All the specimens thus far known are from the Neolithic, or Polished-stone Age, the cremation of the later Bronze Age having probably destroyed nearly all evidence of the custom, if it then existed.

Broca established the significant fact that the operation was performed in childhood, since all the evidences of recent inflammation had long since disappeared, and in one skull at least the deflection of the sagittal suture strongly toward the trephined side, was evidence of long-continued later growth.

The openings are always elliptical, one or two inches long, and a half inch or less wide, and bevelled at the expense of the outer table. They exist in both sexes, at all points covered by the hairy scalp, even in the line of the sagittal suture and the superior longitudinal sinus. In some, multiple openings exist, and some twenty skulls show the removal of the outer table alone by scraping, as was recommended by Johan Taxil in 1603 in his treatise on epilepsy. The edges of the rondelles cut from such skulls as Broca pointed out, are partly of the cicatrized margin of the opening made by the trephine and partly the rougher non-cicatricial margins, the result of posthumous trephining in the removal of the amulet from such highly prized skulls.

DR. ROBERT FLETCHER, of the Surgeon-General's Office, in his recent paper on "Prehistoric Trephining," in the *United States Geographical and Geological Survey* (from which chiefly we obtain the above facts), has summarized Broca's views, and has added all the more recent discoveries together with a number of excellent plates illustrating both the rondelles and the skulls from which they are obtained. Nearly all of the earlier specimens were found in France, but Wankel has found some in Bohemia, Dudik and Virchow others in Bohemia and Poland, and other observers have found a few in Denmark and Algeria. None have been found in Italy, Great Britain, or on this Continent. The remarkable Inca skull of Squier, with its ∞ shaped opening, and those found by Gilman in Michigan, though they have perforations in the skull, are entirely different in character from the trephined skulls of La Lozère. The belief that epileptics were possessed by an evil spirit seeking escape would seem to have led to the operation, and Dr. Fletcher points out that the practice is not uncommon even at the present day among savage tribes, such as the Kabyles, of Algeria, and the inhabitants of the Loyalty Islands. Among the former multiple trephining is not uncommon, and M. Martin records the fact that some persons had submitted to it five or six times. Modern surgical experience shows that the operation *per se* is not a dangerous one (the serious injury which necessitates its performance being by far the most dangerous factor), and the fact that the Kabyles even resort to it in cases of pretended injury, in order to obtain "blood money" for violence done, is a marked confirmation of these views.

The trephine dates back to at least five hundred years before Christ. No such instrument, however, existed in the Stone Age, and the openings are of such character as to forbid the surmise that any

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similar instrument was used. Most probably it was done by scraping, a method which, while tedious and painful in the adult, Broca has shown would be very brief, not exceeding four minutes, in the thinner and softer skull of childhood.

MIXED ANÆSTHESIA BY ETHER, MORPHINE, AND ATROPINE.

UNDER the above title, M. P. Aubert, of Lyons (*Lyon Médicale*, 14 Janvier, 1883), discusses the question of the conjoint administration of ether or chloroform, morphine and atropine. There are some very interesting subjects broached by Aubert, and the results of his experience are worthy of attentive consideration.

Those of our readers who have followed the history of anæsthesia, will recall the fact that Boston and Lyons, since the discovery of insensibility by inhalation of vapors, have remained loyal to ether as the best of the various agents hitherto brought forward for this purpose. Aubert, a representative of the Lyons sentiment, is not unmindful of the position of chloroform as an anæsthetic agent. His opinion is, therefore, the more valuable since he does not ignore the utility of other agents, although an advocate of ether. He also refers to the method of inducing the anæsthetic state, lately brought forward by M. Paul Bert, which consists in the administration, under pressure, of a mixture of oxygen and nitrous oxide; but this method, although strictly physiological, is objectionable because of the complexity of the apparatus required for its proper execution, and hence it is not feasible under the ordinary circumstances requiring the administration of an anæsthetic. To attain the maximum of safety with the anæsthetics now available, is the problem. How best to secure the safe administration of ether or chloroform is, therefore, the point for consideration. M. Aubert maintains that the best results are had from the method of "mixed anæsthesia." This is the outcome of his experience, and of the collective observation of the Lyons surgeons. He calls attention to the fact that so long ago as 1878, Brinon, one of his pupils, presented a prize thesis on the anæsthesia obtained by the combined action of chloroform and morphine. During the following year, M. Hortholès demonstrated that the combination of ether and morphine was superior in respect to the promptness of the anæsthetic action, and the relief to the after-vomiting, to chloroform alone, or to chloroform and morphine. In 1882, M. Morat communicated to the profession the result of experiences he had acquired, in conjunction with M. Dastre, regarding the combined action of an anæsthetic with the subcutaneous injection of morphine and atropine. The theoretical view which led to this combination may be stated as follows:

Vulpian has shown that the excitability of the pneumogastric is increased by anæsthetic agents—whence the vomiting, and sometimes cardiac arrest. Now, morphine, whilst it increases the anæsthetic action, does not to any considerable extent lessen the effect on the pneumogastric nerve; but atropine, by removing the inhibition exerted by the vagus, removes the most important source of danger.

The injection of the solution of the combined morphine and atropine is practised twenty or thirty minutes before the administration of the anæsthetic—usually ether. The ordinary dose of morphine is from $\frac{1}{12}$th to $\frac{1}{4}$th of a grain, and of atropine from $\frac{1}{180}$th to $\frac{1}{90}$th of a grain. Complete insensibility is obtained in from three to seven minutes. The assistants, says Dr. Aubert, have been much surprised to note the difference which exists between the method of mixed anæsthesia—so calm and silent—and the inhalation of ether alone, with its period of excitement, and the after-vomiting and depression.

The great superiority of ether over chloroform, as respects safety, is certain; but the unpleasant effects of the former, and the prolonged stage of excitement produced by its inhalation, constituted almost insuperable objections to its use. M. Aubert now maintains that the method of mixed anæsthesia obviates these objections, so that ether may be given with the same ease and satisfaction as chloroform.

In view of the recent sad examples, illustrating the danger of chloroform anæsthesia, it is the more desirable to be put in possession of a method which combines the facility of chloroform inhalations with the superior safety of ether. In the method of "mixed anæsthesia," this desirable result seems attained.

POISON IN THE KINDERGARTEN.

IT goes without saying that our children ought not to be poisoned. Yet in the Kindergarten, one very serious and mostly unsuspected danger has been brought very forcibly to our notice within the last few days, and we call instant and urgent attention to it.

An analysis of eighty-four samples of the paper used in the Kindergarten weaving, shows that *arsenic* is present to a considerable extent in a large number of the papers, and in eight of the samples to a very dangerous degree. The danger is especially great when we remember that young children not only handle them, but are very apt either to handle them with wet fingers or even very often to put them into their mouths and chew them. All of the eight worst papers were of the brightest and therefore the most attractive colors, three being greens, three reds, one blue, and one purple. They were all taken from the sample book of one Massachusetts firm, who

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supply such papers in large quantities all over the land.

In one respect the firm is commendably honest. In their catalogue they openly state that many of the papers do contain arsenic, and that the brightest greens and reds cannot be made from other than arsenic colors. But they make light of the whole affair, saying, that "a child old enough to use the paper material should be too old to put such things in its mouth." As if *any* one under seven, at which age children leave the Kindergarten, were too old to put such things in its mouth. Moreover, they quaintly add, "we have yet to hear of a single Kindergarten pupil that has ever been injured by the use of the colored papers." Do they propose to go on furnishing papers known to be poisonous till they *do* hear of a child poisoned by them? Surely after the repeated exposure of the dangers of arsenic in wall papers it is little less than criminal to continue to make them, and least of all to make them for the use of children.

As to lead and other such poisons in colored papers the quantity that has to be eaten is so great, as compared with arsenic, that they are not seriously dangerous.

We hope that the State Board of Health of Massachusetts will investigate this matter. Indeed, it would be highly proper for the legislatures of our various States to make both the manufacture and the sale of such papers, whether for wall papers or other purposes, a penal offence.

PNEUMONIA.

BUHL, it will be remembered, makes the assertion that fibrinous or croupous pneumonia never terminates by passing into sclerosis of the lung. Two cases observed at the Tübingen policlinic by Jürgensen prove, however, that this mode of termination, although rare, does sometimes take place.

In some observations on the treatment of pneumonia, Prof. Jürgensen expresses himself as opposed to the administration of salicylic acid as an antipyretic, because it reduces the temperature so rapidly as to endanger collapse. Quinine is not open to this objection. He reserves digitalis for cases in which the action of the heart is irregular.

URÆMIA OF HEPATIC ORIGIN.

THE source of urea formation is by no means certainly known. Any facts bearing on this interesting question must, therefore, have a value determined by their relevancy. M. Débove has recently submitted a communication on this topic to the Medical Society of the Hospitals of Paris. As has been maintained by M. Brouardel, in most hepatic diseases a sensible decline takes place in the quantity of urea in the urine. It is held by most authors, that the diminution is in urea formation, rather than in the excretion of this substance, but M. Débove maintains the latter view. He has sought to maintain this position by comparative examinations of the blood, and of the urine. He has ascertained, he asserts, that in many chronic hepatic affections the quantity of urea in the urine is notably less, whilst in the blood it is increased. He holds, therefore, that there is a form of uræmia which is hepatic in origin. He explains these phenomena by assuming that the bile elements cause a retention of excrementitous matters in the blood.

DR. FORBES' ACQUITTAL.

SUCH wide publicity has been given to the arrest and indictment of Dr. Wm. S. Forbes, Demonstrator of Anatomy at the Jefferson Medical College, for conspiracy to rob Lebanon Cemetery, in this city, that it is only just that equal publicity should be given to the fact that twelve men, after a full hearing of the evidence, and in the face of a public feeling largely unfavorable to the accused, have unequivocally pronounced him "not guilty."

As every anatomist knows, the present law relating to anatomy is so ineffective, and the demand for subjects so pressing, so imperative, that, while refusing to take bodies from strangers (we would hardly say "buy," as did the learned judge in his charge, in spite of the fact that the law punishes "traffic" in human bodies), yet the medical schools *must* take "unclaimed bodies" from those whom they know, and who regularly bring such to them, without any inquiry as to where they came from, trusting to the integrity and law-abiding character of those who deliver them. As the learned judge said in his charge very properly, "for various reasons secrecy is maintained concerning them."

We earnestly hope that the new Anatomy Act may soon be passed, and with it we believe all temptation to violation of the law will disappear, for the supply of material will be abundant, and no anatomist will be put to the large expense, inexpressible annoyance, and terrible worry and strain to which our *confrère* has been needlessly subjected for the last three months. We congratulate him heartily on his vindication.

WOMEN AS PHARMACISTS.

WE are glad to see that at the late commencement of the College of Pharmacy, in this city, for the first time a woman had the degree in pharmacy conferred upon her. Of all the various branches of labor opening to women, none seems to us more promising than this, and we hope that many more may follow in her footsteps.

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REVIEWS.

? QUIZ-COMPENDS ? PRACTICE, PART I. By DANIEL E. HUGHES, M.D., etc. In two parts., pp. 105. Philadelphia: P. Blakiston, Son & Co., 1882.

THE suggestive mark of interrogation may be interpreted to express the pertinent inquiry—*cui bono?* That the publishers will reap a greenback harvest there can be no doubt. That students will solace themselves with the pleasing notion, that here at last is an easy road to the acquisition of medical learning, may also be regarded as certain. But what of the author? We fear his attempt to smooth the rugged pathway to the doctorate will not redound to his own credit. When we come to examine his attempts to make plain the dark corners of medical knowledge, there arises a suspicion that his aspirations are beyond his powers—that his attempts to scale the heights are rendered abortive by insufficient legs. Let us examine his record. We need not go beyond the first page.

Organic disease is one "when located in some particular structure." It becomes "functional when the perverted process cannot be located." If a disease of the brain cannot be located, it becomes functional, therefore!!

A *diathesis* is a "hereditary predisposition to certain diseases." A predisposition cannot be acquired, must be inherited. On the next page we learn that "the *prodromes* are the earliest recognizable symptoms; when sudden in their onset, the disease is said to be *acute;* when less sudden, *sub-acute;* when gradual or slow, *chronic.*"

In this brief paragraph there are several errors. Prodromes are, as the term implies, forerunners or preliminary symptoms, and may be the same for many affections. Again, the terms acute, sub-acute, and chronic, apply not to the prodromes, but to the type of the case proper.

We might select a multitude of examples of erroneous definition and inaccurate statement. It is very unfortunate that medical students are to be induced to follow such a guide. If they are to depend on such a compend, it ought at least be accurate, and the profession has a right to demand that books of this kind be correct in statement, how deficient they may be in all other respects. Even if, however, quiz-compends are without defect in their own scope, they have no right to exist. The appearance of such a series as now announced is truly ominous, for it indicates the existence of a large number of students who are solely concerned to be able to pass the examination for the doctorate.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, February 27, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

ABSCESS IN THE LOWER PART OF THE FEMUR.

DR. LANGE presented a patient, twenty-eight years of age, who had had bone abscess. When thirteen years of age he was subject to osteitic affection of the femur, and during the next six years suffered from repeated exacerbations of the disease. The disease commenced with very severe pain which lasted for one year, but not until the end of two years did a sinus open and some pieces of bone make their exit. At the end of six years, no operation ever having been performed, all the sinuses closed and the patient remained apparently well until last August, when he again began to suffer from severe pains without apparent cause, especially at night, and when Dr. Lange saw him, in the beginning of October, he was very much reduced in strength, and presented that exhausted appearance and pale-gray complexion ordinarily seen with chronic bone abscess. On examination, the femur was found very much thickened in its lower half and somewhat thickened higher up. There was pain upon deep pressure in the region between the middle and the lower third of the thigh. The entire history of the case made it probable that central abscess of the bone existed, and he therefore, early in October, laid bare the bone, and bored into it in two places without finding pus, but on making a third opening pus discharged, and he then enlarged the opening and found quite an extensive abscess, the cavity of which seemed to be very narrow and made up of several lacunæ, one of which contained a small sequestrum. About half of the femur had to be chiselled open, the thickness of the wall of the abscess reaching in some spots nearly ½ inch. The immediate surrounding of the pus cavity consisted of soft cancellous tissue, permeated by granulations and small pus cavities. But, to that a very thick sclerotic bone substance followed. After the abscess had been evacuated and scraped out, the soft parts were closely stitched together by *étage* sutures; two bone drainage-tubes were inserted, and permanent antiseptic dressings were applied. During the next six weeks only four dressings were applied, and no accident took place, except necrosis of the superficial fascia in the upper part of the wound, and there still remained some small openings, which were simply superficial and had no connection whatever with the cavity of the bone. The femur upon the affected side was about an inch and a third longer than the other. Furthermore, the position of the knee was in hyperextension, and at the same time there was a slight amount of mobility in the joint greatly to the discomfort of the patient, because it gave to him a feeling of uncertainty in stepping. To remedy this to a certain extent, Dr. Lange had advised that an apparatus be worn which should fix the knee. During the past week pain had occurred again, but it differed in character from that from which the patient first suffered, and was shooting up and down the anterior aspect of the thigh. This pain had been relieved by the administration of quinine, and besides, the patient had a swollen spleen. At the time of the operation Dr. Lange opened the cavity of the knee-joint, which he found obliterated, but no unfavorable symptoms followed. An especially interesting feature in the case was the smooth healing of the bone cavity that followed complete sewing up of the soft parts, with the after-treatment adopted. The scar showed no depression, and was narrow on account of the first intention to the greatest extent.

OSTEOMYELITIS OF THE ILIUM.

DR. LANGE also presented a patient, sixteen years of age, whom he saw for the first time two years ago, and four weeks after the beginning of a severe illness, with the formation of a large abscess on the anterior aspect of the iliac fossa. The hip-joint was apparently not involved. He saw the patient in consultation with Dr. Hoeller, of this city, and made a number of incisions for the evacuation of pus. The case illustrated that spontaneous separation of the epiphyseal junction might occur suddenly, as in the next following week the patient's limb suddenly showed the deformity characteristic of fracture of the neck of the femur. A weight and pulley were then applied, and the great shortening which had occurred was for the greater part removed. Six months after the beginning of the abscess, Dr. Lange performed necrotomy of the ilium,

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and removed twelve pieces of bone, mostly superficial, some of them central, especially in the upper part of the acetabulum. The patient made a comparatively speedy recovery. The position of the limb remained unsatisfactory, namely, in very great adduction. There was not complete anchylosis. The weight and pulley were applied, and the limb brought down, so that the difference in length between it and its fellow was not quite one inch, and with a slight corresponding elevation of the heel of the shoe on the affected side, the patient was able to walk very well. Since that time, the adduction had relapsed, and Dr. Lange thought it would be best to let it go on, and, after complete anchylosis had taken place, to make section of the bone for the correction of the deformity. He had had three cases of acute osteomyelitis of the ilium, in two of which there was separation of the epiphyseal junction at the neck of the femur. In one case he took particular care to avoid separation by applying a weight and pulley, and yet the accident occurred.

EXTIRPATION OF THE LOWER PART OF THE RECTUM, AND ALSO THE COCCYX.

DR. LANGE also presented a patient from whom he had removed the lower part of the rectum for cancer, and, to facilitate the operation, he had also removed the coccyx. The patient had been operated upon twice, the second time for recurring disease within the pelvis in the depth of the ischio-rectal fossa. At the present time he has several suspicious glands in the inguinal region. He presented the patient to illustrate the comparatively good functional result which followed the operation, namely, he was able to control the discharges from the bowels perfectly if the passages were consistent. Flatus escaped, however, without the control of the patient. The first operation was performed one year ago; the second operation was performed last October. The coccyx was removed at the first operation; at the second operation he removed the mucous membrane to some extent, on account of prolapsus. The removal of the coccyx at the first operation facilitated operative measures very much. There was not much obstruction of the bowel before the first operation was performed, and the patient was not aware of the existence of the disease until about six weeks previously; and yet he had extensive disease of the rectum. He had supposed that he was the subject of hemorrhoids, and had been treated for that affection. The explanation which Dr. Lange gave of the ability of the patient to control the discharge from the bowels was that the sphincter tertius maintained its function. It could be felt as a weak and soft somewhat incomplete closure immediately above the new external opening.

DR. L. A. STIMSON remarked that Dr. Lange's first case illustrated the importance of early attention to purulent disease within bone. He recalled a case in which he trephined the head of the tibia in a patient fourteen or fifteen years of age, who had been suffering for eighteen months with recurrent attacks of pain in the shaft of the tibia, and thickening of the upper and middle thirds of the bone had developed. He localized the seat of maximum pain, and trephined at that point, and pus was found in the medullary cavity after passing through a layer of compact bone one-fourth of an inch in thickness, and the operation was followed by rapid recovery, which had remained permanent to this date—nearly three years. At the time of the operation there was no sinus or discharge of pus, but the bone appeared somewhat thickened, and was sensitive, and the soft parts lying over it were thickened. On reaching the bone, the periosteum was found thickened, and an abscess opened which contained from half an ounce to an ounce of pus.

DR. POST remarked that in cases of persistent pain in the tibia confined to a limited space, a diagnosis of abscess was a pretty safe one to make.

DR. L. S. PILCHER then read a paper on

THE USE OF LIGATURES IN THE WOUNDS OF VEINS.

Dr. Benj. Travers, in his essay on *Wounds and Ligatures of Veins*, which was published in 1811, seems to have been the first to draw special attention to the dangers attending injuries of veins. He speaks of the "fatal catalogue of tied veins," and says that he has observed something like that superstitious alarm which is excited by events that we do not expect and cannot explain, when such a catalogue is compared with the generally successful cases of tied arteries. Mr. Travers says that it has been shown "that the inflammation of the interior tunic of a vein sometimes follows a puncture, sometimes a division, a ligature encircling the tube, or including only a part of it, or arises spontaneously from an inflamed surface, of which the veins form a part." He ascribes to John Hunter the credit of having first distinctly pointed out the liability of the interior tunic of veins to inflammation, and exclaims that it is most extraordinary "that this alarming and often fatal inflammation of the inner coat of veins should so long have escaped the notice of the profession." The language of Dr. Hunter (quoted by Mr. Travers from the *Medical and Chirurgical Transactions*, vol. i. pp. 18, 19) is, "I have found in all violent inflammations of the cellular membrane, whether spontaneous or in consequence of accident, as in compound fracture, or of surgical operation, as in the wound of an extremity, the coats of the larger veins passing through the inflamed part become also considerably inflamed, and that their inner surfaces take on the adhesive, suppurative, and ulcerative inflammations; for in such inflammations, I have found in many places of the veins adhesions, in others matter, and in others ulceration." "I have found them [these appearances] in the bodies of those who have died from amputations, compound fractures, and mortification."

Mr. Travers, in this essay, remarked the indisposition to inflame manifested by the inner tunic of veins as a rule, having himself observed that, even after ligation, there was no blush upon the inner tunic, much less any sign of adhesive inflammation, or thickening of the proper coats of the vein, or agglutination of the contiguous folds (p. 201), so that the process of healing and of division by ulceration seem to him to be conducted without any manifestation of inflammatory action in the interior tunic. He thought, however, that this was not inconsistent with a liability to inordinate and excessive inflammation under adequate excitement.

This opinion as to the indisposition of the inner tunic to inflame has become more positively expressed by recent writers. Nicaise, in his thesis "On Wounds and on Ligation of Veins" (Paris, 1872), p. 74, states that, though Hunter, and after him Ribes, Gendrin, and others, considered phlebitis as an inflammation of the internal tunic, numerous observations since their time have demonstrated that primary inflammation of that membrane is very rare, if, indeed, it exists. He does not enter into any discussion of the subject, but contents himself with saying that most frequently inflammation begins in the cellular tunic, and thence may spread to the middle and involve also the internal tunic. He quotes Trousseau and Rigot (from the *Arch. Gén. de Méd.*, 1827), as saying that, "Every year we see patients succumb to phlebitis supervening upon phlebetomy. We are far from denying the frequency of the accidents which follow bleeding; but too often there has been taken for an inflammation of the vein what was only inflammation of its cellular sheath." A kind of periphlebitis being the real malady. Still

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more positively does Mr. Callender, in the article on diseases of veins—Holme's *System of Surgery*—claim that primary inflammation of the inner tunic of veins is never met with, and that in all cases we have to do with either progressive coagulation of blood within veins and its sequelæ, or with diffuse phlegmonous inflammation of their connective-tissue sheaths; thrombosis and periphlebitis being thus substituted in surgical nomenclature for phlebitis. Diffuse periphlebitis, according to this author, cannot occur in a patient in a fair condition of health, and when it does occur after puncture or division of a vein, it is not a consequence of the application of a ligature, for, whether the vessel be tied or not, this inflammation may supervene.

The changes of views which appear from these brief historical references, to have taken place as to the liabilities to inflammation inherent in veins, have been attended with corresponding changes in the character of the surgical interference to which they are subjected. To a period during which there was entire absence of apprehension of danger, so that, to use the language of Travers, they were attacked with singular rudeness, pricking, cutting, tying, and burning them, without ever adverting to any other than the mechanical effects of such operations upon the diseases for which they were instituted, there succeeded years during which they came to be considered as especially intolerant of interference, and prone to the development of unexpected and uncontrollable complications. To this has now succeeded another period in which any special vulnerability in veins is not admitted, and a tendency to return to unrestricted attacks is manifest.

For the purpose of eliciting the experience and opinions of the surgeons of to-day, on the important question of the hazards of surgical interference with veins, I took up one year ago, in a paper which I read before the Philadelphia County Medical Society, the subject of the ligature of large venous trunks. It will be remembered that Dr. S. W. Gross, of Philadelphia, in a paper published by him in the *American Journal of the Medical Sciences* in 1867, upon wounds of the internal jugular vein and their treatment, reached the conclusion that the dangers of ligation of that vessel had been greatly exaggerated, as not a single example had been found by him, in which ligation had been followed by diffused phlebitis. Embodied in that paper was also a summary of the teachings of prominent surgical authors of the present century up to that date, as to venous ligation in general, from which it appears that while a numerical majority teach that its risks have been greatly exaggerated, yet a sufficiently large number, including the names of Roux, Lisfranc, Langenbeck, Miller, Erichsen, and Pirogoff, speak of it as being attended with great danger, and to be avoided by all possible means.

I called attention also to the additional source of danger which had been claimed to exist in the denudation and contusion of veins. Dr. Gross, in his paper, had quoted the observations of Broca, who, in his treatise on aneurisms (*Des Aneurysmes et de leur Traitement*, p. 478, Paris 1856), describes inflammation of the accompanying vein denuded, perhaps bruised in exposing an artery for the purpose of ligation, as one of the possible complications of such operations. Also, two cases reported by Langenbeck (in *Archiv für Klinische Chirurg.*, 1860, t. i.), in which thrombosis followed, with a fatal result in one of the cases; a denudation of veins occurring in the course of the removal of tumors; also, observations of a similar nature by Post and J. C. Warren.

Nicaise, in his thesis already referred to, quotes these observations also, and adds that Ollier, of Lyons, has several times observed this accident, so that he has formed the opinion that extensive denudation of a large vein is more dangerous than ligation; and that where, after such denudation immediate union is not obtained, when the flaps that cover the veins slough; when, in a word, the veins remain exposed at the bottom of the wound, all the accidents of an extensive and progressive thrombosis are likely to occur. In three instances Ollier had seen death follow in from eighteen to thirty-six hours after the beginning of the thrombosis. Happily, however, says Nicaise, denudation does not inevitably involve accidents so grave as those noted by Ollier; most frequently it is followed by no complication. Nicaise also quotes the opinion of Weber (Pitha und Billroth, *Handbuch der Allgemeinen und Speciellen Chirurgie*), that contusions of veins are more likely to be followed by thrombosis and suppurative periphlebitis than are pricks and lateral wounds.

In the discussion[1] that followed the reading of my paper, Prof. Henry H. Smith stated that he was not aware that any doubt existed among surgeons of the present day as to the advisability of ligating veins, although he was of the opinion that a diseased vein, *e. g.*, varicose, would be apt to give trouble under conditions in which a healthy vein would do well; citing a case in which varicose veins of the leg were tied, and death ensued in five days.

PROF. SAMUEL D. GROSS said that he had long been in the habit of ligating veins, and early in his professional life was impressed with the fact that the fear of such ligations was unfounded. He was opposed to lateral ligation, and thought it always best to tie the vein in its continuity. Varicose veins he would not ligate, nor would he excise an exposed vein, unless it could not be avoided.

PROF. S. W. GROSS stated that he was now cognizant of sixty cases in which the internal jugular vein had been tied; forty-seven of these were examples of ordinary deligation, of which one terminated in death by thrombosis. Thirteen were instances of the application of a lateral ligature, of which four proved fatal from secondary hemorrhage. The freedom from hemorrhage after the ordinary procedure, and the occurrence of fatal bleeding in more than one-third of all cases after the lateral ligature, was a sufficient ground for its exclusion from practice. He believed that veins may be ligated with as much confidence as arteries.

DR. PACKARD stated that, in his experience, whether in cases under his own care or in the hands of other surgeons, ligation of veins had been attended by no bad results.

DR. HUNTER stated that Dr. Agnew had ligated the internal jugular vein at its point of emergence from the skull, the ligature coming away at the end of the second week without unfavorable symptoms.

DR. BLACKWOOD had seen during the war many cases of gunshot wounds of the vessels of the neck; whenever lateral ligation had been used, in the cases in whose after-history he had been able to follow, a fatal result from secondary hemorrhage had ensued. He had no fear in ligating veins, though he agreed that diseased veins do not bear ligation like healthy ones.

DR. NANCREDE reported a case in which he had been compelled to keep the internal jugular vein exposed for a long time, in an operation which was followed by prolonged suppuration, during which the vein was kept bathed in pus, without injury to it. He never hesitated to tie veins in the course of operations.

DR. ALLIS had applied a lateral ligature to a wounded internal jugular vein, and had obtained rapid and permanent recovery. Dr. Parkes, of Chicago, had

[1] See Philadelphia Medical Times, 1882, p. 664.

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seen lateral ligation used in three cases of wounds of the internal jugular vein, with recovery in each case, while in one case, after complete ligation, death was occasioned in thirty-six hours from thrombosis.

DR. KEEN could not agree with previous speakers as to the inadvisability of operating upon diseased veins. In varicose conditions he had several times exposed and ligated the veins at points one inch or more apart, and exsected the intervening portion by the antiseptic method, and with excellent results. In his opinion, the ligation of varicose veins by the catgut ligature was the best treatment.

It will be seen that the points upon which discussion was elicited involved the subjects of the safety of ligation in general, the propriety of the application of a lateral ligature in certain cases, and the effects of exposure and denudation of veins. Despite the freedom from disaster, which had characterized the large experience of the eminent surgeons who took part in this discussion, and which thus far has likewise been enjoyed by myself, I am not quite prepared to dismiss, as without foundation, the opinions of the many other eminent observers who declare that surgical interference with veins does involve peculiar dangers. While so strongly expressed an opinion as that of Chassaignac that "ligation is one of the most dangerous operations of surgery" (*Traité Clin. et Prat. de l'Operat. Chirurg.*, t. I.), may not appear to be justified, or even that of Erichsen, that the application of a ligature to a vein "should, if possible, always he avoided" (*Science and Art of Surgery*, 1878, vol. i. p. 278), it is still undeniable that there are special hazards that attend the surgery of the veins. "The fatal catalogue of tied veins," referred to by Travers, the yearly deaths from inflammatory complications following phlebotomy, admitted by Trosseau, and the fatal cases of thrombosis, reported by Ollier, remain each as types of a distinct class, to which fresh examples are from time to time being added, of dangers that are peculiar to veins, and which ought, even in this day, to receive due attention from surgeons. The direction of the blood current in the veins towards the heart through continually widening channels, and the favorable arrangement of the connective-tissue sheaths of the veins for the propagation along the course of the veins, as in lines of least resistance, of spreading suppurative inflammation, constitute the conditions which, by their combination, favor the production of disastrous complications after wounds of these vessels.

The more accurate knowledge which recent research has given us of the etiology and pathology of these complications, has made more emphatic the truth that in addition to the predisposing causes, both local and constitutional, that may exist, the introduction of a continuously active irritant from without through a wound is essential to the establishment and extension of the morbid processes. Here we venture upon a field which is yearly becoming less and less debatable; that is, the agency of micro-organisms in the production of spreading inflammation. The differences in the intensity of the results of these agents in different cases seems to be due to differences in the resisting power of the tissues to which they gain access. The presence of defective resisting power gives a ready and sufficient explanation why, in persons depressed and enfeebled from any cause, a wounded vein should be more likely to give trouble than in the robust and vigorous. Also, it explains why the nutritive defects in the tissues that lie about varicose veins should be sufficient to render operations upon such veins extra hazardous. An important consideration in this connection also is that, in most instances, the resisting power of the tissues, though diminished, would still be sufficient to resist attack and accomplish repair without serious complication, if they were not submitted to extensive and repeated traumatism. Thus from the point of view of the relation of micro-organisms to wound disturbances, the conclusion forces itself upon the conviction of the observant surgeon that in all cases care should be taken that a minimum of traumatism should be inflicted upon veins and their ensheathing connective tissue; particularly when adequate measures to prevent the access of noxious micro-organisms are impracticable, does the importance of fostering the natural resisting power of the tissue demand recognition.

If the tissue conditions which attend varicose veins be taken as an example of a vulnerable tissue, it is easy to understand why so frequently disastrous consequences have followed operations upon them conducted without antiseptic precautions; and why, with such precautions, such disasters rarely, if ever, occur. In such procedures as the strangling of a varicose vein between an unirritating metallic pin inserted behind it, and a compress laid over it upon the surface of the skin, or the subcutaneous injection into the neighborhood of the vein of a substance capable of exciting a local adhesive inflammation in the tissues reached by it, the two opposite conditions of wound treatment are exemplified. In the one, no protection from hurtful atmospheric constituents, but a minimum of local tissue irritation; in the other, a maximum of local tissue traumatism, with exclusion of atmospheric germs. It is to be expected that excellent results should attend either method, though both are imperfect in their conception, and both more hazardous than methods in which the two conditions are combined; that is, methods by which both exclusion of noxious micro-organisms is secured, and a minimum of local tissue traumatism is produced.

The question of the relations of micro-organisms to the effects likely to follow involves, in addition to these differences in local tissue, vulnerability exemplified in the case of varicose as compared with sound veins, and the different constitutional susceptibility possessed by different individuals to the effects of micro-organisms: as Ogston (*British Med. Journal*, March 12, 1881), when injecting micrococcus pus into the tissue of mice, found that, though the same dose was injected into each of a number of mice of the same litter, the effects greatly varied—one, perhaps the largest and strongest, escaping unscathed or with but slight illness; in others, abscess developing; in some, necrosis; and in one, perhaps the smallest or most weakly, death from septicæmia. So also with the same amount of traumatism and the same exposure to the access of micro-organisms in operations involving veins. The most diverse effects may result in different individuals, though in all, whatever the perturbation in the normal process of repair may have been present, the cause has been the same—poisoning by micro-organisms.

I will take the liberty of citing, as well as illustrating, the most grave consequences of poisoning by micro-organisms following operations upon veins. In the case of operation for cure of an arterio-venous aneurism which was reported to this Society, April 26, 1881, by Dr. E. L. Keyes (*Virginia Med. Monthly*, December, 1881), the patient was described as having been anæmic, and possessed of a low degree of vitality. The operation, at Bellevue Hospital, was difficult and prolonged; at its close, there was a ligature upon the perineal, upon the posterior tibial, and upon the popliteal, and upon one other vein, while the aperture of the anterior tibial vein was occluded by a sponge saturated with a solution of subsulphate of iron. The patient rallied slowly from the ether. The wound did not granulate, but assumed first a dry pink, then a moist gray appearance, with some colored serum

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shortly before death. Forty-two hours after the operation there was a slight chill, followed by a condition of torpor, physical depression without delirium, terminating in death sixteen hours later. Just before death, the temperature was found to be 105.25° F.

What was the source of the poison that so speedily overwhelmed this patient, and prevented even local reparative effort? No microscopical examination of the tissue of the wound site in this case are recorded; but observations of similar cases by other observers (Ogston, *loc. cit.*, and also *Journal of Anatomy and Physiology*, vol. xvii. p. 49) and experiments upon animals have demonstrated that in such cases the wound tissues are infiltrated by enormous and appalling growths of micrococci. The poisonous ichor or ptomaine, the chemical resultant of the decomposition induced by the proliferating micro-organisms, is produced in quantities measured only by the activity of the growths of the micro-organisms, and is absorbed rapidly into the blood, and in such amount that but a few hours are needed for such a degree of blood-poisoning to be effected that death is the result.

The case in question is seen to have had in an unusual degree all the conditions needful for the development of the greatest activity of invading micro-organisms — general resisting power at a low ebb, local tissue resisting power undermined by previous disease, traumatism great and prolonged, a hospital atmosphere likely to contain active germs. It is obvious that in other cases in which less favoring conditions exist, every gradation, both of the local and general toxic manifestation may be produced, so that in slight irritation and transient fever, in phlegmonous inflammations, early bounded by the formation of a wall of granulation tissue, in diffuse inflammation with spreading gangrene and advancing venous thrombosis, as well as in the instance in which profound and rapid general intoxication is produced with but slight local symptoms, we have an expression of the result of the same disturbing agent. While it is true that the development of these effects does not necessarily depend upon the presence of veins in the wounds thus attacked, yet a frequent connection between veins and the more severe grades of this tissue poisoning, poisoning results from the readiness with which the connective tissue which ensheathes the veins permits the progressive invasion of micro-organisms, and from the fact that the resulting periphlebitis determines the formation of coagula in the involved vein, which, in their turn, are likely to be speedily invaded by micro-organisms and become converted into poison dépôts from which ptomaines, pus, and emboli are discharged directly into the circulation.

The question whether the application of a ligature to a vein is in itself the source of any additional hazard in any given case becomes perceptible of a more definite answer in the light of the more definite knowledge to which we have attained as to the pathology of the disturbances which complicate wounds. It has been seen to how different a conclusion a simple appeal to experience has led different observers; these conclusions varying from the extreme presented by Gross, that "the danger of ligating veins is in great degree, if not entirely, unfounded;" to that presented by Chassaignac, that "ligation is one of the most dangerous operations of surgery." A more satisfactory result will be reached by an analysis of the particular conditions which the presence of a ligature upon a vein introduces into a wound, and by a consideration of the effects of such conditions upon its repair.

The introduction of the antiseptic animal ligature has modified so greatly the conditions which attend a ligature, in those cases in which it is used, that a discussion of the effects of the ligature demands a separate consideration of the simple unprepared thread, and of the antiseptic animal ligature.

The doctrine that the tunics of a vein possess a special intolerance that renders them liable to destructive inflammation more quickly, and upon less irritation than other tissues, has received abundant refutation, and deserves mention simply as a matter of historical interest.

The effects of the mere constriction of the vessel by the ligature does not introduce new dangers into the wound. What these effects are, the use of antiseptic ligatures has enabled us to determine, and their discussion will be in order, more particularly in connection with the consideration of the effects of such ligatures. It is, therefore, among the indirect effects of a ligature that conditions of importance, if there be any, are to be found. These indirect effects are purely those produced by the prolonged sojourn of the ligature in the tissues. Whenever the traditional ligature is applied, the constricting thread is an irritating foreign body in the wound, and invariably excites along its track an inflammation which persists until its removal is permitted by the division, by ulceration, of the walls of the constricted vein, a period of time extending upon an average from one to two weeks, according to the size of the vein. By preventing union by first intention the ligature favors the entrance and development of atmospheric germs during the entire time that it keeps the wound open, and saturated with the secretions of the suppurating sinus which it creates, it becomes the best of mediums for transmitting micro-organisms to the deepest part of the wound. The irritation of its presence puts an additional strain upon the resisting power of the tissues among which it lies, and to this extent lessens their ability to resist the invasion of micro-organisms that may at any time find access to them.

The result of a failure of the tissues to resist such invasion of micro-organisms has already been dwelt upon, and the relation of cause and effect, which they bear to diffuse periphlebitis and to septicæmia shown.

The conditions thus enumerated, which attend the presence of an ordinary ligature, when viewed in the light of present knowledge as to the agencies by which wound disturbances are caused, certainly justify a dread of ligation as a hæmostatic agent in venous hemorrhage, and makes more emphatic the cautions as to its use. That in the great majority of cases the amount of disturbance resulting from the ligature should be limited to a circumscribed inflammation, which simply mats together the tissues adjacent to the ligature, is but another evidence of the extent of the natural resisting power inherent in healthy living tissues. It is in those cases in which defects of resisting power exists, as notably in tissues whose nutrition has been interfered with by the varicosity of their veins, that the full effects of the conditions determined by the ligature would be developed.

But these considerations as to the sources of wound disturbance and their relation to serious complications after vein wounds, show the importance of eliminating them, not only in cases where veins already diseased exist, but also in all cases in which vein wounds demand special means for the control of hemorrhage. The importance of protecting such wounds from further irritation, and from becoming the seat of multiplying micro-organism, makes of great importance the search for a substitute for the ordinary ligature.

The acu-pressure of Simpson and the forci-pressure of Pean, both present great advantages, as methods for controlling venous hemorrhage, over the common ligature, and few conditions will be found in which one or other of them may not be substituted for the ligature. The retention of the compressing needle, or forceps,

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is rarely necessary for a longer period than a few hours. Their smooth metallic surfaces do not irritate the wound, and their early withdrawal removes any obstacle to union by first intention that they might possibly have caused during their residence in the wound. In my paper of last year, already referred to, I reported a case in which permanent closure of a lateral wound in the internal jugular vein was accomplished by the application of the hæmostatic forceps and its retention for a little more than twenty-four hours. In most cases, as in wounds of veins in the axilla, or in the neck, in operations in those regions I have been able to remove them in a much shorter time.

In dealing with wounded veins, as acu-pressure needles and hæmostatic forceps excel the ordinary ligatures, so they, in turn, are excelled by the animal ligature and the antiseptic methods by which, with a perfect hæmostatic, easily and universally applicable, that provokes no irritation by its presence in the tissues, and that is spontaneously removed by absorption when no longer needed, security is also guaranteed against the access of micro-organisms that might disturb repair. By the use of the antiseptic animal ligature it becomes possible to avoid the sources of disturbance that have thus far been recognized in wounds involving veins, and thus inflammatory and septicæmic complications almost completely vanish from the phenomena that attend the ligation of veins.

But one possible objection presents itself to the use of an unirritating absorbable thread, viz., that its application may not be sufficient to produce the effusion of the amount of plastic material necessary for securing the permanent adhesion of the vein walls at the point of constriction. Such an objection, however, has not thus far been supported by clinical experience. In connection with this experience, an experimental inquiry into the method by which obliteration of a vein is accomplished without the aid of a thrombus, or of an irritating ligature would be of importance. For the purpose of such a study I made a number of experiments during the past year upon goats; these experiments included three ligations of the internal jugular vein, and two of the femoral vein; I was assisted in them by my friends Drs. Fowler, J. H. Hunt, and J. E. Pilcher. Antiseptic catgut was used as the ligature in each, and the operation was done with antiseptic precautions; union by first intention of the operation wound was secured in each instance. As the result of these operations, I secured specimens illustrating the condition of repair upon the second, fourth, ninth, fourteenth, and twenty-fourth days after ligation. These specimens were prepared for microscopical examination by Dr. Hunt, who made sections of the frozen fresh specimens, which were then stained with hæmotoxylin and eosine, and mounted in damar. In the interpretation of these preparations I have been able to obtain the skilled opinion of Dr. E. O. Shakespeare, of Philadelphia, who finds that in them the tissue cells of the tunica interna are seen to have undergone marked proliferation; the activity of this proliferation being greater as the point where the vein walls are constricted and approximated by the ligature is approached. By the accumulation and confluence of the mass of cells in the cul-de-sac formed by the vein constriction, obliteration of the lumen of the vein is accomplished; this obliteration being perfected and made permanent by the subsequent extension of capillaries into it, and its transformation into connective tissue. Reference to these experiments, together with diagrams illustrating this proliferation of the tunica interna will be found in a report of the lecture of Dr. Shakespeare on inflammation in the bloodvessels, delivered before the College of Physicians of Philadelphia, 1882, and published in THE MEDICAL NEWS, May 20, 1882, p. 539.

In none of these experiments did a thrombus form on either side of the ligature, except in one case, in which, after having applied one ligature, I applied a second one to the swollen vein above, a little more than an inch distant. The part of the vein between the two ligatures having been left filled with blood, I thus obtained a thrombus. This specimen was removed on the ninth day. It seemed to illustrate the conditions of repair in the absence of a clot on the one side of the ligature, and in its presence on the other side. On this latter side, the clot has simply seemed as an unirritating injecting material, by which the vein is distended, and the study of the conditions presented by the vessel is facilitated, without otherwise modifying the character of the reparative process. The clot plays here, as in any other wound in which blood has been effused, and in which it has been protected from the access of destructive micro-organisms, simply the part of an unirritating foreign substance mechanically distending the parts among which it is diffused, until it shall be invaded and appropriated by active cells from the adjacent tissue.

The ligatures still remained unchanged in all the specimens, the chromic gut, which was used in the first two experiments, and the long-kept carbolized gut (three years in carbolized oil), which was used in the last three experiments, not being readily acted upon by the tissues. Though the ligatures were thus made less absorbable, the tissues in which they were embedded showed no irritation from their presence.

A plain conclusion from these considerations as to the character of the process, determined by the application of a ligature to a vein, is that the obliteration of the lumen of the vessel is a secondary effect of reparative changes which have as their first object the restoration of functions in parts whose nutrition has been disturbed by the original application of the ligature. The simple fact that the agent which has disturbed the nutrition of the tunica interna, and provoked a more active metamorphosis and proliferation of its cell elements, has at the same time held the vein walls in coaptation until the confluence of the plastic material from the constricted vein walls has become sufficient in amount and tenacity to permanently unite them together. Essentially, the process is that of the formation of a cicatrix, and in its course the ligature plays the same part as does the suture in ordinary wounds, that of maintaining coaptation of the wounded structures until firm adhesion is secured. We see in this also the same process as that by which a simple lateral slit in the vein wall may be repaired without obstruction to the current of blood through the vessel, the edges of the slit themselves furnishing the material for its repair, the amount of which material, if only further irritation or traumatism be withheld, being strictly limited to the reparative needs of the injured structures.

These conclusions as to the process of repair after ligation of veins with unirritating ligatures find an important practical application in the consideration of the propriety of substituting a lateral ligature, or a lateral suture for ligatures encircling the entire vessel in the treatment of wounds involving but a portion of the side walls of a great vein.

It will be remembered how positive was the condemnation of the lateral ligature expressed both by Prof. S. D. Gross and by Prof. S. W. Gross in the Philadelphia discussion. I find that Malgaigne also (*Médicine Operatoire*, ed. 1881, p. 114) strongly condemns it, saying that "the lateral ligature will be an operation forever to be condemned," and that "for very extensive wounds of venous trunks, where compression is insufficient, the *only* resource is the ordinary ligature." Malgaigne's objection, however, was

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founded on the erroneous idea that permanent hæmostasis after a vein wound dependent upon the formation of a clot sufficient to occlude the entire lumen of the wounded vessel, and that, inasmuch as the lateral ligatures in some cases might fail to provoke the formation of such a clot, in such cases where the ligature came away, secondary hemorrhage would be inevitable.

The objection of Prof. Gross is based upon the statistical statement, that of thirteen instances in which the lateral ligature had been applied, four proved fatal from secondary hemorrhage; a source of danger of rare occurrence when a vein is ligated in its continuity. Such a record of disasters, in his opinion, outweighs any advantages that might be supposed to be gained by lateral ligatures, and make its use justifiable.

It is to be borne in mind, however, that this record of disasters is a record of results from the use of the ordinary ligature. Reference to what has already been said as to the conditions which the use of such ligatures introduces into the repair of a wounded vein will be found to give ample explanation of the frequency of secondary hemorrhage after its use as a lateral ligature. The introduction of the antiseptic animal ligature, however, which may be cut short, and over which speedy union by first intention of the wound may be secured, places the subject of lateral ligature upon an entirely different basis. The tissues of the puckered side-wall of the vein, where they are grasped by the ligature, are placed in the same condition as that already described as characterizing veins ligated in their continuity. No thrombosis is required, nor formed by its insufficiency or its disintegration to become a source of danger. There is no ulcerative process to extend unduly and to leave an opening in the vein wall when the ligature comes away. That the process of the formation and complete organization of the plastic material that fills in and effaces the irregularity produced by the application of the ligature should proceed undisturbed to its conclusion, demands simply that the general precautions for securing wound repairs are observed. The ligature acts as an unirritating reinforcement that prevents the rupture of this new tissue during the yielding period of its history, and itself finally is disintegrated and is removed in the ordinary tissue changes of the part. Practised with the antiseptic animal ligature, lateral ligature, therefore, promises to be a justifiable and valuable means of treatment in wounds of the lateral walls of veins.

Lateral suture suggests itself as a resource in long linear wounds of the side walls of large veins. It would be simply a modification of the lateral ligature, and the same considerations would be applicable to it. I believe it to be practicable, and can conceive of conditions in which it would be a resource of great value.

DR. POST remarked concerning the ligation of veins in stumps after amputation, that he had been accustomed to do so without hesitation, and had not known any injurious consequences to follow. He had had one case in which he tied the primitive carotid artery for a large teleangiectasis involving one side of the face. The patient died with symptoms of pyæmia; although the jugular vein was not exposed, there was found at the autopsy thrombosis of that vessel and embolic inflammation of the lung. The vein also contained a phlebolite.

He had also met with one fatal case of phlebitis following the use of pins in the treatment of varicose veins of the thigh.

DR. GERSTER had applied the lateral ligature to the internal jugular vein in a case of multiple lymphoma of the neck. A row of catgut ligatures were applied to a longitudinal slit, and primary union followed the operation. He had also ligated the internal jugular vein in the course of exsection of tumors of the neck in four instances, in some of these cases he applied simply a double ligature. In two instances, however, he was obliged to exsect considerable portions of the vessel, and in one case, death followed exsection very shortly. The case was one of those where it is impossible to determine whether death was caused by incipient acute septicæmia or shock. A post-mortem was made, but it did not reveal any positive evidence as to the cause of death. The central portion of the vein did not show any septic changes which could serve to explain the termination of the case.

In one case he had exsected a very large venous plexus, situated near the scroto-femoral fold, mainly on the inner surface of the thigh in a powerful young baker, who was prevented from attending to his daily business on account of the severe pain which the growth produced. It was a convolution of varicose veins, some of them very large, covering an area of about ten square inches. In that case he removed the entire mass, and proceeded as in the exsection of a very vascular tumor, applying double ligatures, about sixty in number, and cutting the vessels between them. Some of the branches of the vessels penetrated through the fascia into the muscular structure, and were removed with portions of connective tissue and of muscle *en masse*. Union by first intention occurred in this case, and no further trouble was experienced. The chrominized catgut ligature was employed.

DR. LANGE referred to a case already reported to the Society, in which he applied the lateral ligature to the internal jugular vein, accidentally opened in the attempt to tie the common carotid artery for secondary hemorrhage. In that instance air entered the vein. The ligature used was antiseptic silk, and recovery took place, and he subsequently presented the patient to the Society.

VESICAL CALCULUS WITH A PIECE OF SILVER WIRE FOR A NUCLEUS.

DR. J. C. HUTCHISON presented a vesical calculus which he removed from a boy fifteen years of age, upon whom he operated ten years ago for stone in the bladder. The first operation was that of median lithotomy, in which he wounded the rectum, and a rectal fistula followed, and continued up to the time of the second operation. He made several attempts to close the fistula, twice by inserting silver wire sutures, two or three times by touching the margins of the fistulous opening with nitric acid, but in all instances unsuccessfully. The last attempt to close the fistula by sutures was about a year and a half ago. The case was left under the charge of the house surgeon, who was requested to remove the sutures at a certain time, and he did so. The boy, however, was never comfortable after the operation, but always complained more or less of pain in the bladder. The urine continued to pass through the rectum, but the opening was very small. On the first of February last, Dr. Hutchison examined the bladder very carefully with the sound, symptoms of stone having presented themselves, and detected a calculus. On the following day he performed the medio-bilateral operation, and found the stone adherent to the posterior part of the bladder so firmly that he was unable to detach it with his finger, but by taking a piece of flexible wire and making a loop he was able to remove it. On examining it he found the nucleus was a piece of silver wire.

The interesting features in the case were, first, the wound of the rectum, not a common accident in lithotomy. Second, the difficulty in closing the fistula. Third, the accident of dropping a suture into the bladder, which formed the nucleus of the calculus. Fourth, the difficulty of detaching the stone from the

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wall of the bladder at the time of the operation. After the last operation the perineal wound was kept open for twelve days, and the edges of the fistula were again touched with nitric acid. The wound was kept open by introducing a catheter through it, allowing the tip of the instrument to remain just in the neck of the bladder, pushing it forward occasionally to withdraw the urine. This was done with the hope that the fistula might close, and he was of the opinion that union had taken place.

DR. POST mentioned that Dr. Kearny Rogers, operated a large number of times for vesical calculus, and frequently wounded the rectum, but no bad results followed in any of his cases.

DR. BRIDDON remarked that wounding the rectum was not so infrequent as was generally supposed, it had occurred once to him in eighteen lithotomies.

The PRESIDENT remarked that wounding of the rectum with the median operation was quite unusual. He had operated by the median operation some thirty-four or thirty-six times, and had never had an accident of that kind

DR. HUTCHISON remarked that this was the only case in which he had performed the median operation.

OSTEO-SARCOMA OF THE THIGH.

DR. POST remarked that an interesting feature in the case which he reported at the last meeting was that a week after the operation there was an active pulsation in the femoral artery from the groin downwards to the point where the vessel bifurcates. Below that point, the patient's limb being very thin, he was able to trace the vessel distinctly as a hard cord, nearly as large as the little finger, and evidently filled with a coagulum.

RHODE ISLAND MEDICAL SOCIETY.

Quarterly Meeting, March 13, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Society met in Lyceum Hall, Providence, March 15th, the PRESIDENT, DR. JOB KENYON, in the chair.

The SECRETARY, DR. G. D. HERSEY, read the records of the December meeting, which were approved.

The Chair appointed Drs. Anthony, Saunders, and White, a committee to nominate

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION,

and upon the recommendation of this committee, the following gentlemen were elected delegates:

Drs. Job Kenyon, O. C. Wiggin, H. G. Miller, C. W. Parsons, C. B. Mathewson, Geo. H. Kenyon, G. D. Hersey, W. E. Anthony, A. A. Saunders, F. H. Rankin, S. W. Francis, D. H. Batchelder, G. W. Stanley, S. Hunt, H. G. Pomroy, S. B. Church, W. J. Burge, W. S. Bowen.

The President and Secretary were empowered to fill any vacancies that might occur.

DR. G. TABOR SWARTS read a paper giving the results of his investigations of the recent

EPIDEMIC OF TYPHOID FEVER IN PROVIDENCE.

He stated that out of five hundred reported cases he had thus far investigated two hundred, and proposed bringing up the subject again at a subsequent writing. Regarding the two hundred cases looked into, he observed as follows: A few cases were reported in September, 1882, a larger number through October, and the greatest number late in October, and the early part of November—Nov. 1st nineteen cases were reported in a single day. Of the two hundred patients, the occupations were these: sixty-two were scholars or teachers; eighty-five were in sedentary or indoor work; twenty-seven were in pursuits necessitating a constant change of temperature; nine were engaged entirely out of doors; seventeen not ascertained.

Sex.	Color.	Age.
111 males.	195 white.	1 to 5 years—15 cases.
89 females.	5 colored.	6 " 10 " —32 "
		11 " 20 " —81 "
		21 " 30 " —44 "
		31 " 40 " —17 "
		41 " 50 " — 6 "
		51 " 60 " — 5 "

In seeking for possible local causes of the disease, he had noted the following: In twenty-three instances the cellars were damp; in many localities garbage was found; in twenty-five per cent. of the cases *well* water alone was used by the family for drinking and cooking; and in five per cent. tank or cistern water. In many instances it was suspected that the domestics were in the habit of using water from the *hot* water faucets for culinary purposes, which may be dangerous if the plumbing of the *tank* that supplies the hot-water reservoir is defective. In seventy-nine houses iron sinks, having an unwholesome odor, were found, there being a lack of proper trapping. Nothing suspicious was found relative to the milk and ice used in the families. On the whole, fair sanitary conditions were found in thirty-two per cent. of the cases, and unsanitary in sixty-eight per cent. In seven instances the contents of privy-vaults had overflowed upon the ground, and sewage was found upon the ground in thirty-five cases; swill was decaying on the ground or in privy-vaults in thirty-two cases; nine over-crowded neighborhoods were found; there were ten cases noted where the sickness had occurred in bedrooms in close proximity to privy-vaults. In many schoolhouses improperly trapped sinks were found. It was found also that in fifty per cent. of the cases the use of disinfectants during and after the illness had been wholly neglected.

Dr. Swarts then, by the aid of blackboard diagrams, explained several of the defects most frequently found in the plumbing of houses.

DR. H. G. MILLER reported the following cases:

MALINGERING.

A man who was a soldier in the late war, soliciting a pension, came to Dr. M's office, saying he was totally blind in one eye and that the vision was impaired in the other eye. Upon external examination the eyes seemed sensitive and irritated, without obvious cause. The ophthalmoscope revealed no abnormality in either eye, and the stereoscopic tests employed proved conclusively that vision was perfect in both eyes. The man was accompanied by his wife, and the case was the more noticeable from the apparent respectability of the parties. They both asserted that the man, in addition to his loss of vision, suffered from a foul, bloody, purulent discharge from one of his ears, which discharge, however, was not present at the time of their visit, as it disappeared occasionally. Upon examination, no perforation of the drum membrane, or any other lesion was found.

TUMORS OF THE ORBIT.

A woman, 50 years old, fell, striking on her forehead. Some months later a slight protrusion of the right eyeball, directly forward, was noticed, but there was no pain or impairment of vision. Two years later a swelling appeared just below the eyebrow at the inner angle of the orbit, accompanied by pain and defective sight, but as vision in the other eye was impaired, an operation was greatly dreaded. It was decided on finally, and an incision made parallel with the eyebrow. A tumor the size of a filbert was easily removed, but

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the protrusion of the eyeball was not diminished. Further examination revealed another growth occupying the innermost part of the socket. The eyeball was then enucleated and the new growth excised, it being nearly double the size of the one first removed. The operation was followed by very severe cellulitis of the orbit. The tumors were not connected with the wall of the orbit or with the lachrymal gland, and it was hoped they would prove to be simple fibrous growths, and non-malignant. They had not as yet been examined microscopically.

IMPAIRMENT OF THE RETINA

at the macula lutea from looking at the sun with the naked eye. A commercial traveller, 25 years old, who rather prided himself on his strong eyes, attempted to observe the recent transit of Venus without a shaded glass. After looking at the sun nearly five minutes without special discomfort, he noticed his sight became blurred. This continued for a week before he sought treatment. When first examined his vision was about one-fifth. The macula presented a whitish appearance, as though coagulation had taken place there. He has gradually recovered his vision, which is now nine-tenths, and the whitish appearance at the macula has changed to a reddish one.

ELECTION OF A FELLOW.

Upon the recommendation of the Board of Censors, Dr. J. A. B. Tanquay, of Providence, was elected to Fellowship.

DR. S. S. KEENE read a paper upon

PNEUMONIA.

In regard to treatment, the writer denounced in severe terms the old system of venesection and other methods of depletion, claiming that science has demonstrated that an excess of fibrine in the blood is always present in this disease, and that *bleeding increases* the amount of fibrine by four hundred per cent; that the volume of blood is replaced in twenty-four hours from the lymphatics; that the crisis is not hastened; and that the danger is greatly increased of purulent infiltration from excess of white-blood corpuscles. The free use of antimony was also deprecated.

DR. H. BATCHELDER advocated a return to the old methods of treatment. He was surprised that any practitioner could denounce bleeding as dangerous. He himself had just been called to see a robust man in the first stage of pneumonia. He found him in a critical condition, lips purple, etc. He bled him freely, with a marked improvement in all respects. In his own practice, extending back forty-four years, he found, by his notes, he had treated in all 487 cases of acute pneumonia, in 376 of which he had performed venesection; of those bled only 2 died, while 7 of those not bled died. He believed also in the use of antimony, giving it until its specific effects were obtained. Its use requires caution, but rightly handled it is a sovereign remedy.

D. E. M. SNOW read a paper on the

EARLY HISTORY OF VACCINATION.

The first experiments of Dr. Jenner were described, the writer praising the prudence and wisdom shown by him in forseeing objections to his system, and preparing to meet them. The criticism and ridicule to which Jenner was subjected were alluded to, and an old engraving shown, in which was represented Jenner himself in the act of vaccinating a woman, while around him were men, women, and children, from whose heads, arms, and legs the heads of horses, and other members of horned creatures, had grown out—the result of inoculation with *bovine* virus. The first vaccinations performed in this country were by Dr. Benjamin Waterhouse, in Cambridge, Mass., in the year 1800, and probably in July. His own children were the first subjects, and in the month of August five of them were inoculated with smallpox virus, with no effect.

Dr. Artemus Stebbins, who lived with Dr. Waterhouse, made a business of vaccinating throughout the States of Massachusetts and Rhode Island, and to a certain extent in New Hampshire and Vermont. He used a large complicated apparatus for vaccinating, made of silver, at a cost of $40. This man Stebbins vaccinated in all 138,000 persons.

In the year 1810, Dr. Sylvanus Fanshers was employed to vaccinate the people of Providence, by a contract ratified in Town Meeting. He vaccinated here that year 4,305 persons, being paid about five cents for each one.

In 1816–17, Dr. John McKee vaccinated a total of 1,017 persons in Providence, among whom only one case of *bad arm* was reported. In 1856, the City Council of Providence adopted the plan of having free public vaccination performed at the office of the Superintendent of Health. Since then, Dr. Snow said he had vaccinated, in his capacity of Superintendent of Health, 28,365 persons, an average number annually of 1,091, the largest number in one year having been 2,798, in 1872. During this period he had issued 34,435 certificates of vaccination to school children.

DR. E. A. KEMP, of Lonsdale, reported a case of

MALIGNANT ULCERATIVE SORE THROAT,

first quoting from the work of Dr. J. Solis Cohen, on throat diseases, to show the rarity of such cases.

Dr. Kemp's patient, S. F., aged 22 years, married, of good family history, and a mill operative, came under treatment October 5, 1882, he having had a slightly sore throat for four weeks previous, but feeling able to work up to within three days of the date mentioned. On examination, both tonsils were found enlarged; and on the left one was a circumscribed phagedenic ulcer, about three-fourths inch in diameter; the mouth was opened with great difficulty; the face and eyelids were swollen, the eyes were glassy, and there was fever of a low type; there was dysphagia; the tongue was but little coated; the tonsils and gums were of a deep red color; the uvula and pharynx were œdematous; the ulcer presented a deep ash color; there was fetor of the breath.

The disease soon assumed a typhoid type. The voice was weak and muffled. On the eighth day of the disease the patient seemed better and was about the house. On the tenth day was worse; pulse 120; temperature 103½°; but still up and dressed. On the thirteenth and fourteenth days no particular change noted—keeps about the house, with pulse 140, and temperature 104½°. On the sixteenth and seventeenth days, pulse less rapid and patient seemed stronger. Eighteenth day, pulse 132; patient growing weak, but taking plenty of nourishment. Twentieth day, rather less œdema about the tonsils, small ulcerated spots appeared on the tongue; brandy, whiskey, sherry, and milk were given very freely. Ulcers appeared on the head and arms on the twenty-second day, and the patient died from exhaustion on the twenty-third day. A supporting treatment was maintained throughout. Locally, an attempt was made to pencil the surface of the ulcer with strong hydrochloric acid, but it caused so much pain it was discontinued. The mouth and throat were freely rinsed with liq. sodæ chlorinatæ.

DELIVERY IN THE ERECT POSITION.

DR. W. J. BURGE said he was recently called to a confinement case, and found the child had been born

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nearly an hour. Delivery occurred suddenly while the mother was on her feet in a stooping posture, the child dropping to the floor. Those present simply wrapped it in a blanket and left it undisturbed. On examination the doctor found the child alive and the funis separated about five inches from the umbilicus. No hemorrhage had occurred and the child's condition was good.

DR. JOB KENYON mentioned a case where the woman was delivered while standing, and the cord was torn apart about five inches from the navel. No hemorrhage occurred and the child lived.

DR. GREELY said he knew of an instance of the cord being torn off *at* the *umbilicus* without injury to the child. Adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 15, 1883.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D., IN THE CHAIR.

THE subject of the paper of the evening was read by DR. F. R. STURGIS, and was entitled,

THE REPRESSION AND REGULATION OF PROSTITUTION.

The paper, the author said, was prepared at the special request of the President, it being one of the avowed objects of the Academy to promote the public health.

Three points were laid down for consideration:

First, the causes of prostitution.

Second, the necessity for regulation.

Third, the results obtained by legislative action.

Under the head of causes were enumerated, *first*, the man, as being the prime agent; this point was agreed upon by all writers on the subject in England, France, and America; *second*, the love of dress; *third*, the absence of proper home influences, which includes a *fourth* cause—the indiscriminate herding in tenement houses; *fifth*, the increase of luxury and civilization, thereby producing increased means for tempting women.

The arguments advanced in favor of regulating the evil were, *first*, the increase of syphilis. This disease was becoming more and more widely prevalent, particularly among the better classes. The number of young women, or those who came fresh upon the town, having contracted syphilis, were notably increased in our city hospitals. *Second*, the number of women in New York City, based on an estimate furnished by Sanger's statistics, was placed at 6,000, but this number probably represents only the known women, the clandestine class being found in the proportion of nearly six to one. Dr. Sturgis thought that Sanger's figures were too high. Depses' statistics probably came nearer the truth, being in the proportion of known women, 1 in every 601; clandestine, 1 in 104, of the population. Estimating the population at 1,000,000, this would give a total of over 11,000, while Sanger's statistics would make the number 42,600.

The effects of legislation in various countries went to show that, although it is impossible to suppress the evil, it is possible to keep it within bounds, and whenever women are found diseased, to insist on proper treatment. In this country, at least, one good point could be made, viz., that of insisting upon all persons found diseased by the police, or who voluntarily commit themselves at the charity hospital, to be retained there until cured, or until the surgeon considers them beyond the contagious period.

The paper was discussed by Hon. Judge Brady, Drs. Webber, R. W. Taylor, and Sturgis.

CORRESPONDENCE.

MR. SPENCER WELLS' OVARIOTOMY STATISTICS.

To the Editor of THE MEDICAL NEWS:

DEAR SIR: I have just received from Mr. T. Spencer Wells the subjoined communication, which I send to you at once in the hope that you will be able to give it an early insertion in THE MEDICAL NEWS as well as in the *American Journal of the Medical Sciences*. If your readers will refer to THE NEWS, of January 27th, they will find that the statistics of Mr. Wells' cases were furnished me by Mr. Thornton, and not compiled by me. They were originally intended for the new edition of my *Surgery*, but having reached me too late for insertion in that work, I obtained permission from Mr. Thornton to publish them in THE NEWS, where they appeared without one syllable or letter of alteration. In reading Mr. Wells' opening sentence, it might be inferred that I was the author of the statistics. It would have been well if the celebrated ovariotomist had said that the *statement* to which he therein refers had been based upon Mr. Thornton's statistics, as that would have rendered the matter perfectly clear as far as it concerns me. Mr. Thornton's statistics dealt only in generalities, and not in any details respecting the gradually diminishing mortality of Mr. Wells' successive series of one hundred cases. In doing this the distinguished ovariotomist had, I am sure, no intention of misrepresenting his friend Mr. Wells, for whom he has always cherished the warmest regard and highest esteem. It may gratify Mr. Wells, as it certainly does me, to know that the new edition of my *Surgery* contains an accurate account of his statistics derived from his own recent work on ovariotomy.

I have the honor to be

Your obedient servant,

S. D. GROSS.

PHILADELPHIA, March 17, 1883.

3 UPPER GROSVENOR STREET, LONDON, February 27, 1883.

MY DEAR PROF. GROSS: You have published in the Philadelphia MEDICAL NEWS a statement comparing the results of my operations of ovariotomy in 1088 cases with those of three other operators in 381, 328, and 226 cases respectively, making a total of 935 cases. The mortality of my cases is given correctly at 22.15 per cent.; and that of the other operators as 10.76, 10.67, and 11.94 per cent. On this plain statement, as you have published it, any one would conclude that I am a less successful operator than my juniors. Indeed, the author of a very eulogistic review of my last book in the *American Journal of Medical Sciences*, of January, 1883, misled by a false statement in the *American Journal of Obstetrics* (vol. xv. page 547), that I "had gone on for twenty years operating on hundreds of cases with a mortality of 25 per cent.," takes the trouble to give what he believes to be a true explanation of the "high range of mortality in his [my] ovariotomies." He says that I had labored for an "ideal success;" but "his [my] own practice fell short of this ideal." If it were true that after twenty years' operating, I had gone on operating with a mortality of 25 per cent., while others did not exceed 10 or 12, some such explanations as those proffered by my able and kindly reviewer might serve as my excuse. But it is not true. When I had been operating for twenty years, I had reduced my mortality to 11.62 per cent. The results of successive series of 100 cases had been made known, from 34 in the first, and 28 in the second, to 17 in the ninth, and 11 in the tenth series of 100 cases. My cases of 1879, 1880, and 1881 had been published, with results of 11.62, 9.57,

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and 10.7 per cent.; and in the preface to my book, published in May, 1882, I afford proof that, "notwithstanding the fact of my being often called upon to treat patients rejected by other surgeons as unfavorable cases, the progressive diminution of the mortality still continues." I added, "It is still more gratifying to be able to add that this increasing success is not confined to myself nor to British surgeons, but is also established in Germany, France, and Italy." There really can be no excuse for this attempt to discredit me with a high mortality after twenty years' experience, as in my book (pp. 214, 215) I had shown very plainly how in successive periods of five years the mortality progressively diminished, and that in the

First five years,	about 1 in 3	died.
Second and third five years,	" 1 in 4	"
Fourth five years,	" 1 in 5	"
Last two years,	" 1 in 10	"

Or, putting it in another form, that in the

First five years,	70 per cent.	recovered.
Second five years,	74 "	"
Third five years,	73 "	"
Fourth five years,	80 "	"
Two last years,	90 "	"

I trust, my dear Professor, that you will accept my desire to stand well with my American brethren as a sufficient excuse for this long letter. And with sincere respect, I am, etc.,

T. SPENCER WELLS.

NEWS ITEMS.

CANADA.

(*From our Special Correspondent.*)

DOCTORS IN CANADIAN LEGISLATURES.—In the Dominion and Provincial Houses at present in session, there are sixty members of the profession—a representation of about two per cent. Half of these are in the Dominion Parliament, seven in the Senate, and twenty-three in the House of Commons. Eight are graduates of English Universities, twelve of American, and the remainder of Canadian. Of the American colleges, Harvard is represented by six, University of Pennsylvania by three, University of New York by two, and Rush by one. Nearly all of these are members from constituencies of the maritime provinces.

ANATOMY ACT.—The government of the Province of Quebec has brought in important amendments which may do away with the practice of body-snatching, so common here. Two inspectors are to be appointed, with sub-inspectors in each judicial district, who are to see that all unclaimed bodies in institutions receiving government aid are handed over to the schools. The institutions are to notify the inspectors within twenty-four hours of the death of friendless individuals. Claimants must show relationship within the third degree. Schools and colleges are to pay ten dollars apiece for the bodies, the fee to go to the inspectors, and to cover cost of removal, etc.

PROFESSOR CROFT.—The death is announced of this well-known Canadian chemist, who for thirty-five years occupied the chair of Chemistry in University College, Toronto. During this long period he was the leading expert in all cases of poisoning. He was superannuated two years ago, and has since been living in Texas, where he died on the 28th ult., aged 64.

LONDON.

(*From our Special Correspondent.*)

THE STUDENTS' MEDICAL ASSOCIATIONS are carried on in connection with the individual medical schools. Each school of any size and standing has its own medical society, managed by the students. In some, the teachers take no part whatever; in others, they act as presidents, or even share more largely in the management. The societies are primarily for the purpose of holding meetings once a week or alternate weeks, for the discussion of scientific topics, and exhibition of objects of interest; and in connection with some of them are a reading-room, library, microscopes, osteological and other preparations. The subscription is small, and nearly all students join. Perhaps the most famous of all is the Abernethian Society, of St. Bartholomew's Hospital, in which the staff of the hospital take a great interest. An account of a recent meeting of the Middlesex Hospital Medical Society, of which Dr. Douglas Powell is president, may interest or show what a good work such meetings do. Dr. Powell was unavoidably absent from this meeting, and one of the senior students took the chair. The proceedings throughout were most orderly. From the minutes of the last meeting, it appeared that then a paper on chorea, with special reference to its pathology—the writer, a student, contending that the disease was a rheumatic affection of the neuroglia.

Then Mr. Sutton, one of the demonstrators of anatomy, was called upon to show some specimens. These were—1. A large encephalocele projecting through the occipital bone, and containing the cerebellum; it was covered with healthy skin; there was no hydrocephalus. 2. A single kidney in a fœtus in which there was no trace of the left organ, or of its artery, vein, or duct; but the suprarenal capsule and testicle of the same side were entire. 3. A specimen of congenital obliteration of the middle of the third part of the duodenum, with great dilatation of the stomach above—and this, although the child had only lived a few moments. 4. An ovary and Fallopian tube which had been removed from the inguinal canal of a young woman who had no vagina or uterus. Between the ovary and duct were two tiny cysts of the organ of Rosenmüller. 5. A cancerous tongue in which one lingual nerve was traced passing into a mass of cancerous infiltration; the patient suffered severe pain during life. 6. Nerves from two stumps showing bulbous enlargement of their ends. 7. A gall-stone surrounded by a thick false membrane, and lodged in a small depression in the upper surface of the liver. 8. A specimen of anteflexion of the uterus of a water deer. 9. And a specimen of anteflexion of the uterus of a baboon in which there was great atrophy of the concavity of the bend; this specimen would have greatly interested Dr. Graily Hewitt and his disciples. 10. A ruptured vagina from a hyena: this was produced during parturition, and three young hyenas were found in the peritoneal cavity. 11. Necrosis of lower jaw from monkey. 12. White patch on heart of a bird. 13. A remarkable parasitic disease in an African carnivorous animal. These specimens were not only described and inspected, but with regard to most of them Mr. Sutton added anatomical and pathological remarks of interest and oftentimes novelty. I think your readers will agree with me that such an evening's work is not unworthy of any medical society. Afterwards a few of the students spoke, referring to similar cases, or asking apposite questions, and one of the assistant surgeons of the hospital, who happened to be present, made remarks on several of the specimens. Another member of the Society exhibited several microscopical sections of amphioscus, human retina, etc., and then the meeting was closed with refreshments in the form of tea and coffee. It is impossible to doubt that such meetings must exert a very powerful influence for good upon the students, educating them, and fitting them in many ways for their future position in society.

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THE LONDON MEDICAL UNION.—A scheme of quite a different kind has just been started in London. This is a club for medical students of all the schools, which in addition to supplying the ordinary accommodation of a club, holds meetings for scientific discussion; gives musical entertainments, and aims at collecting a scientific and general library. The great difficulty it has to overcome is, that already the better class of students have their time too fully occupied to be able to frequent a club; and hence it is in danger of becoming the resort of the less industrious students. Most teachers have from time to time felt the want of residential colleges for our medical students. At present, with very trifling exceptions, the students live in more or less discomfort in lodging houses; some of the more favored ones finding a home with medical men connected with medical schools. This exposes the men—many of them very young—to great temptations; and is, do doubt, one important cause of the failure of many to steer straight through the rocks and shallows of their student days. At King's College, University College, and St. Bartholomew's Hospital, there is a small residential college in connection with the schools. But the London Hospital, which is situated far in the East of London, is about to make the most important experiment in this direction that has yet been made. Should it succeed, it will be necessary for the other schools to provide similar accommodation, in self-defence; and this would make it difficult, if not impossible for one or two of the smallest schools to hold their own at all.

THE TUBERCLE BACILLUS, AND ITS RELATION WITH PHTHISIS AND TUBERCULOSIS—Some months ago the "Scientific Research Association" requested Mr. Watson Cheyne to investigate this subject, and his report has this week been presented to the council of the Association, and will shortly be published; and I must postpone any further allusion to it until the full text of it is at my disposal. The whole question is of course exciting much interest here, and a very good discussion on it has recently been held at the Medical Society of London.

THE BELLEVUE HOSPITAL MEDICAL COLLEGE.—The twenty-second annual commencement of the Bellevue Hospital Medical College was held in Chickering Hall, New York, on the 14th inst., and the degree of M.D. was conferred on one hundred and sixty-seven candidates by Dr. Isaac Taylor, the President of the Faculty. The valedictory address was delivered by Dr. S. D. Gross, of Philadelphia. He advised the young graduate that the Code of Ethics of the American Medical Association should be his guide; it was "the palladium of his rights, and the ark of his safety; he who dishonored it, dishonored his profession."

THE FRUITS OF THE NEW CODE.—A Louisville correspondent of *The Louisville Medical News*, writes to that journal for the yea and nay vote on the New Code at the late meeting of the New York State Medical Society. He says "It is often necessary to refer our friends and patients going eastward to physicians, and it is important to know those members of the New York State Society who have voluntarily severed their connection with the medical profession of the country, so that we may advise accordingly."

LUZERNE COUNTY (PENNSYLVANIA) MEDICAL SOCIETY.—At a stated meeting of this Society held at Wilkesbarre on the 14th inst., a resolution was unanimously adopted instructing the delegates to the State Medical Society to vote against electing any delegates to the New York State Medical Society Meeting, and to oppose any action tending to recognize that Society in any way whatever.

DR. WILLIAM S. FORBES was tried last week on two indictments. The first was for a violation of sepulture, and the second was for conspiring with certain parties to rob the graves of Lebanon Cemetery. In each case the jury rendered a verdict of "not guilty."

CHOLERA IN CALCUTTA.—During the fourth quarter of the past year Calcutta suffered from an unusual rise in its mortality from cholera. The deaths from this disease in October numbered 91, in November 232, and in December 411, making a total of 734 for the quarter, or 373 in excess of the mean number for the corresponding quarters of the preceding ten years. The first indication of unusual cholera prevalence, was the occurrence towards the end of October in some villages of the suburban section, Chitpore, of a very serious outbreak among the coolies employed among certain jute-presses. Close upon 200 of these were attacked in a few days, and the great majority of them died very rapidly. At this time cholera did not prevail with any severity in either town or suburbs, but subsequently the disease became very general throughout both areas. The incidence of the disease in the town was sporadic. A group of cases seldom occurred in one house or locality, but when this did occur, very unsanitary conditions were found in the vicinity. The disease was of a virulent type, the proportion of deaths to cases being remarkably high. The disease did not present any tendency to ascent until after a heavy rainfall, 6.78 inches, which took place on October 15, but with the cessation of the rains and change in the monsoon it made very decided progress, especially in December. About the middle of that month, however, an abatement began; but the mortality rate at the latest dates February 1, continues higher than the average.

WHAT IS SAID OF THE RECENT ACTION ON THE NEW CODE.—There has been no change of sentiment and no recantation of error on the part of those whom these so-called enlightened reformers, masquerading under the disguise of humanitarians, are so anxious to meet by the bedside of wealthy victims of disease.—*New England Medical Monthly*, March 15, 1883.

MEMPHIS HOSPITAL MEDICAL COLLEGE.—The annual commencement of this institution was held on the 2d inst., and the degree of M.D. was conferred on thirty-two candidates. Prof. B. G. Henning delivered the charge to the graduating class.

MEDICAL COLLEGE OF OHIO.—The Sixty-fourth Annual Commencement of the Medical College of Ohio was held on March 8th, the degree of Doctor of Medicine being conferred on one hundred and two graduates. The valedictory address was delivered by Dr. Thad. A. Reamy.

VACCINATION IN GHENT, BELGIUM.—Smallpox has appeared in Ghent, according to late advices, and a notice has been issued by the city authorities inviting the people to get vaccinated free of cost, and offering a fee of twenty cents to those bringing proof that the operation has been successful.

AMERICAN CHOLERA?—Reports from Mr. Langner, Consular Agent of the United States at Tehuantepec, Mexico, describe the occurrence of a terrible epidemic of choleraic disease, which has prevailed in the States of Tehuantepec, Oaxaca, and Tabasco. It began in the city of Tehuantepec on December 13, increased rapidly during the two weeks which followed, until,

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about its acme, one hundred persons died each day. In January the epidemic began to abate, and by the middle of the month had almost, but not entirely, disappeared.

The deaths in the city during the four weeks of the epidemic amounted to fourteen hundred, or nearly to one in ten of the population, the city being said to have fifteen thousand inhabitants. The surrounding villages suffered in like manner from the visitation.

The reports divide the progress of the disease into three periods. During the first the tongue is coated, pulse slightly increased, evacuations fetid, and speedily becoming loose. This primary diarrhœa may continue for two days. During the second period, the evacuations become watery and transparent, cramps are felt in the stomach, with vomiting at first of bilious matter, the ejecta afterwards becoming colorless and transparent. In the third stage, the cramps and other spasms which had already appeared at the end of the second period, became more frequent and vehement; cold perspirations cover the whole body, the extremities become colder, the eyes sunken and surrounded with a bluish areola, the voice reduced to a whisper, the thirst insatiable, pulse weak, complexion cadaverous—the extremities sometimes acquiring a bluish color.

The disease in most cases ran a course of two to three days, but some of the attacks were of extraordinary vehemence, hurrying to the grave in from four to eight hours those who before had enjoyed perfect health. In such cases all the dangerous symptoms were present at the same time.

The remedies used were clysters of linseed infusion and opium, anti-choleraic tincture, dieting, and mustard cataplasms to the epigastrium. An infusion of orange leaves was also used.

Here we have Asiatic cholera in everything but name and derivation, which are very secondary matters, decimating the people of a large section of North America. In a few years, when railroad communication branches southward, such an epidemic will assume a grave aspect to the people of the United States. Owing to the perfection of the health laws of Europe the presence of cholera at Camaran, Jeddah, Mecca, Suez, or elsewhere, on its way from India, is known to us within a few hours after its development and detection, and we become protected by the barriers of enlightened and effective quarantines, which the European authorities interpose. But from cholera on this continent we have no protection. In health legislation we are far behind the age; and the recent action of Congress in failing to respond to the appeal of the profession gives, what seems a serious check, to our progress. But all things come round to those who will but wait, —*and work*. The history of health legislation in all countries shows that, while its course has not run smoothly, the checks which it has encountered have been but temporary in character. So it will prove with us.

TYPHOID FEVER AT LIEGE, BELGIUM.—The State Department has received a report from Mr. Nicholas Fish, our Minister at Brussels, giving an account of a recent epidemic of typhoid fever at Liege. The disease began early in December last, its first victim dying on the 17th of that month. The report extends to February 11 inclusive, during which period 341 persons suffering from the disease were admitted into the civil hospitals. How many were treated in the military hospitals and at their own homes is not stated, but as 182 deaths from the fever were reported during this period, of which only 24 occurred in the civil hospitals, while 144 took place in private houses, and 14 in the military hospitals, we may infer that the total number of cases must have amounted to about 2500.

The greatest mortality appears to have been among males of from 20 to 25 years of age, and among females between the ages of 15 and 20, amounting to 27 of each. Of the 182 deaths, 88, or 48.3 per cent., were among persons between 15 and 25 years of age, while but 21, or 11.5 per cent., occurred among those over 30 years of age. The deaths among females were 101, or 55.5 per cent., and among males 81, or 44.5 per cent. The census of 1880 gave Liege a population of 123,131.

The epidemic was at first light, there having been but 8 deaths to the end of December, and but 1 from January 1 to 10; but during the twenty days from January 11 to 31, there were 110 deaths. From February 1 to 11 there were 73 deaths, and the greatest mortality, 15 deaths, occurred on February 5. From February 7 there was a decrease in the number, the deaths being 5, 4, 2, 3, 1, from the 7th to the 11th respectively.

Mr. Fish calls attention to the fact that Liege is situated in a district which suffered greatly by the floods last summer and autumn; that the winter during which the outbreak took place was exceptionally mild, greatly resembling the ordinary spring weather on the banks of the Ohio, and that the epidemic was preceded by an unusual continuance of rainy weather.

THE VALUE OF VACCINATION.—In the Annual Report of the Medical Officer to the President of the Local Government Board, for the year 1881, the operation and value of the English vaccination laws are demonstrated by an examination of the smallpox deaths occurring in the hospitals and houses of London in 1881, undertaken at the request of Dr. Buchanan, by Dr. H. Stevens. Of the 2379 deaths from smallpox which occurred during the year, children under fifteen years of age numbered 1125, or not quite half the total number; children under ten numbered 953; under five 667. Formerly, in the twenty years before 1871, when public vaccination was gratuitously provided, but when compulsion was little more than nominal, more than half the deaths from smallpox that occurred in London were of children under their fifth year. In the ten years, 1851–'60, these children contributed 59.5 per cent. to the all-age smallpox mortality of the metropolis; and in 1861–'70 they contributed 54.3 per cent.; while in the year 1881 they formed only 27.8 per cent. of the total smallpox mortality. These figures show that it is especially to the advantage of children that vaccination has been made compulsory.

In comparing the mortality of the vaccinated with that of the unvaccinated, the cases of children under ten years are specially studied. In 1881 the population of London, under ten years, was in round numbers divided into 55,000 unvaccinated and 861,000 vaccinated. Among the 55,000 who had not been vaccinated, there occurred 782 deaths; while among the 861,000 who had undergone vaccination, the deaths numbered 125. Upon equal numbers of the two clases, therefore, the mortality from smallpox among the unvaccinated was about a hundredfold the mortality of smallpox among the vaccinated. If the London children under ten years of age who were unvaccinated had had the protection which the current vaccination gives, not 782 of them, but at the outside *nine*, would have died of smallpox during the year; while if the 861,000 vaccinated children had died at the rate of the 55,000 unvaccinated, not 125, but 12,224 deaths would have taken place among them. This saving of life was essentially the effect of vaccination. But the average current vaccination of London is of various sorts; and Dr. Steven's inquiries have touched upon the relative value of public and private vaccinations. The 125 children under ten who died of smallpox, after an alleged vaccination, have to be reduced to 117, by deducting those who on his personal inquiry were

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found not to have been vaccinated at all, or to have been "unsuccessfully" vaccinated; and this number 117 divides itself into 82 vaccinated by private practitioners, and 35 by public vaccinators; while the number of vaccinated children under ten is made up of about equal numbers of each class (53 per cent. at the public expense, and 47 per cent. by private practitioners). When the 35 deaths which are reported to have occurred among those publicly vaccinated are examined, 12 of them are found to have been vaccinated only after their exposure to the smallpox infection, when it was too late to prevent them from catching the disease, and too late to modify its virulence. The remaining 23 cases are made up of two cases that could not be traced, and, in about equal numbers of cases where the child was ill of some independent disease when it became affected with what was registered as smallpox (in a few cases it is doubtful whether smallpox was present at all), and of cases where the vaccination marks, although the work of the public vaccinators, were scanty or imperfect. In only one case had vaccination been performed in the manner contemplated by the instructions of the board. This case finds its parallel in those occasional cases where smallpox itself attacks a person, often severely, and yet leaves him liable to death from a second attack of the same disease after a few years' interval.

During the year 12 deaths were registered in London as from "cowpox" and disease occurring after vaccination. Inquiry into the facts of the several deaths showed that the cause of death, with hardly an exception, was erysipelas, derived from one source or another, and seldom even dating from the vaccination. Dr. Buchanan concludes: "Supposing all the 12 deaths had been justly attributed to vaccination, and had been unavoidable results of vaccination, then 12 lives lost by vaccination have paid for the gain of 12,000 children's lives that would, but for vaccination, have been sacrificed to smallpox, not to mention any gain of security after childhood, afforded by vaccination in infancy." The price has not, in truth, been so high as this; but the complete abolition of every such drawback to vaccination is the aim of every one who appreciates the value of the operation.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending March 10, 1883, indicate that measles and bronchitis have increased, and that erysipelas, intermittent fever, and consumption have decreased in area of prevalence. The reports also indicate that there was a general decrease in sickness.

Including reports by regular observers, and by others, diphtheria was reported present during the week ending March 10, and since, at fourteen places, scarlet fever at nineteen places, and measles at seventeen places. Two cases of smallpox at Detroit March 14.

OBITUARY RECORD.—The weekly *Bulletin de Statistique Municipale*, of Paris, No. 9, March 3, 1883, announced the death of M. Bertillon, Chief of the Bureau of Sanitary Statistics. In 1858 M. Bertillon first raised the important question of infant mortality in Paris, by showing that the department of the Seine and the thirteen departments which surround it furnished 35,000 deaths among children under one year of age, for 173,000 births; while in the rest of France, for an equal number of births, the number of deaths was but 26,000. His labors furnished the most satisfactory arguments in favor of the passage of the law of 1874 for the protection of infant life. His latest work was the reorganization of the service of the City Bureau of Statistics, at the head of which he was placed in 1880. He was sixty-one years of age.

—— On February 23d, in the ninety-third year of his age, PROFESSOR JULES GERMAIN CLOQUET.

Prof. Cloquet was born in Paris in 1790, and obtained his medical education there and at Rouen, his thesis for the *doctorate* being on abdominal hernia. He was elected to the Academy in 1821. Cloquet was a brilliant operator and the author of a large number of valuable papers on surgery and natural history.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 12 TO MARCH 19, 1883.

MURRAY, ROBERT, *Colonel and Assistant Surgeon-General.*—Detailed as member of Army Retiring Board to convene at the call of the president thereof, at Governor's Island, New York Harbor, for the examination of such officers as may be ordered before it.—*Par. 2, S. O. 62, A. G. O., March* 16, 1883.

SUMMERS, JOHN E., *Lieutenant-Colonel and Surgeon.*—Detailed as member of Army Retiring Board to convene at the call of the president thereof, at Omaha, Nebraska, for the examination of such officers as may be ordered before it.—*Par. 9, S. O. 62, A. G. O., March* 16, 1883.

BILL, JOSEPH H., *Major and Surgeon.*—Detailed as member of Army Retiring Board to convene at the call of the president thereof, at Omaha, Nebraska, for the examination of such officers as may be ordered before it.—*Par. 9, S. O. 62, A. G. O., March* 16, 1883.

BROWN, HARVEY E., *Major and Surgeon.*—Temporarily assigned to duty at Mount Vernon Barracks, Alabama, during the absence on leave of Captain T. A. Cuningham.—*Par. 2, S. O. 17, Department of the South, March* 6, 1883.

IRWIN, B. J. D., *Major and Surgeon.*—Detailed as member of General Court Martial to meet at Whipple Barracks, Prescott, Arizona Territory, April 23, 1883, for trial of Captain J. P. Walker, 3d Calvary.—*Par. 1, S. O. 62, A. G. O., March* 6, 1883.

JANEWAY, JOHN H., *Major and Surgeon.*—Detailed as member of Army Retiring Board to convene at Governor's Island, New York Harbor, for the examination of such officers as may be ordered before it.—*Par. 2, S. O. 62, A. G. O., March* 16, 1883.

WILLIAMS, J. W., *Major and Surgeon.*—Upon being relieved from duty at Fort Coeur d'Aléne, Idaho, will proceed to Fort Walla Walla, Washington Territory, and report for duty as medical officer of that post.—*Par. 5, S. O. 24, Department of the Columbia, March* 1, 1883.

CUNINGHAM, T. A., *Captain and Surgeon.*—Granted leave of absence for twenty days, to take effect from the 21st instant.—*Par. 1, S. O. 17, Department of the South, March* 6, 1883.

GIRARD, JOSEPH B., *Captain and Assistant Surgeon.*—Detailed as member of General Court Martial to meet at Whipple Barracks, Prescott, Arizona Territory, April 23, 1883, for trial of Captain J. P. Walker, 3d Calvary.—*Par. 1, S. O. 62, A. G. O., March* 16, 1883.

HEIZMANN, CHARLES L., *Captain and Surgeon.*—To be relieved from duty in the Department of the South, and assigned to duty at Columbus Barracks, Ohio.—*Par. 8, S. O. 58, A. G. O., March* 12, 1883.

TAYLOR, B. D., *Captain and Assistant Surgeon.*—To be relieved from duty at Fort Ringgold, Texas, and will, so soon as able, report to the commanding officer Fort Clark, Texas, for duty.—*Par. 6, S. O. 25, Department of Texas, March* 9, 1883.

WINNE, CHARLES K., *Captain and Assistant Surgeon.*—Granted leave of absence for three months from March 31, 1883, and will be relieved from duty in the Department of the East, and upon the expiration of his leave of absence will report in person to the commanding general Department of California, for assignment to duty.—*S. O. 61, A. G. O., March* 15, 1883.

WOOD, MARSHALL, *Captain and Surgeon.*—Is assigned to duty at Fort Coeur d'Aléne, Idaho.—*Par. 5, S. O. 24, Department of the Columbia, March* 1, 1883.

BRECHEMIN, LOUIS, *First Lieutenant and Assistant Surgeon.*—To proceed to Fort Brady, Michigan, and report to the commanding officer for duty at that post.—*Par. 1, S. O. 41, Department of the South, March* 14, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCES.

VOL. XLII. SATURDAY, MARCH 31, 1883. No. 13.

ORIGINAL LECTURES.

DIABETES MELLITUS.

A Clinical Lecture, delivered at the Philadelphia Hospital, December 9, 1882.

BY JAMES TYSON, M.D.,

PROFESSOR OF GENERAL PATHOLOGY AND MORBID ANATOMY IN THE UNIVERSITY OF PENNSYLVANIA, AND ONE OF THE PHYSICIANS TO THE HOSPITAL, ETC.

(Reported by DAN W. NEAD, M.D.)

GENTLEMEN: The patient whom I show you is 70 years of age, a tailor, who was admitted to the Hospital August 31, 1882. According to his own account, he always had fair health until three years ago, when he noticed that he was passing more urine than usual, and was continually thirsty. At the same time he was annoyed by a dryness of his throat and mouth.

It was with these symptoms that he was admitted to the hospital, and they at once suggested an examination of his urine, which was found to contain sugar. Our first note is dated September 7th, when he passed ninety-six ounces with a specific gravity of 1032, and the next day he passed one hundred and twelve ounces, having the same specific gravity. The first quantitative analysis was made on the 10th, when the urine was found to contain twenty-one grains to the fluidounce. I apply the tests in your presence, and you notice both the Fehling's copper test and Bötger's bismuth test respond promptly, the former precipitating the red cupric sub-oxide, and the latter black metallic bismuth.

You will find in the books, in addition to those named, quite a long category of symptoms, which are at times found associated with saccharine diabetes, but those we note in our patient, viz., dryness of the mucous membranes, unusual thirst, and the passing of an increased quantity of urine, of high specific gravity, and containing sugar, are, after all, those essential to a diagnosis. A frequent mode of termination of the disease is by tubercular phthisis, when, of course, are superadded the symptoms incidental to it. Among others, is an annoying itching about the *meatus urinarius*, caused by the constant passage of the sugar-charged urine over it, and in females this sometimes extends to surrounding parts, producing a distressing *pruritus vulvæ*. Emaciation, great muscular weakness, and the loss of sexual inclination are symptoms incident to the malassimilation of ingested food, which, though taken sometimes in more than sufficient quantity, fails to serve its purpose.

Without delaying further, therefore, to discuss the less essential symptoms of the disease so evidently present, let us ask ourselves the question, what is diabetes mellitus? It is scarcely necessary for me to say to you that it is not a disease of the urinary organs. Its study has naturally fallen into the hands of those interested in these diseases, because it requires for its recognition a study of the urine. But the kidneys are simply the organs which eliminate the sugar from the blood, which is there in undue quantity. Glycosuria, or saccharine urine, implies glycæmia, or saccharine blood. If there is no sugar in the blood, there can be none in the urine.

A certain relation of the nervous system to glycosuria has been known to exist since Bernard's discovery that puncture of the floor of the fourth ventricle produced it. Since then it has been found to succeed upon section of the medulla oblongata, the optic thalami, and great crura cerebri; by destructive lesions of the pons, and middle and posterior crura cerebelli; section of the spinal cord above the second dorsal vertebra; by section of filaments of the sympathetic nerve ascending from the first thoracic ganglion to accompany the vertebral artery; by removal or injury of the superior cervical ganglion; and sometimes, but not always, after section of the sympathetic in the thorax; and even after section of the nerve trunks of the limbs, as the sciatic.

With such glycosuria is invariably associated an active hyperæmia of the liver. It must be remembered, also, that an important function of the liver is the formation of the so-called glycogen or animal starch from the starchy and saccharine articles of food, and to a slight extent from albuminous food. Thus produced, it is stored in the liver, but reconverted into sugar and passed into the blood in such quantities as are demanded by the organism, for oxidation. Remembering this function of the liver, there are two ways in which an excess of sugar may get into the blood. Either the grape sugar, formed by the digestion of sugar and starches, may pass too rapidly through the hyperæmic liver to permit its conversion into glycogen, or having undergone this conversion, it is too rapidy reconverted into grape sugar to be oxidized. The blood soon acquires an excess of glucose, and the latter then appears in the urine. It has been ascertained by experiment that when the amount of glucose in the blood exceeds one-quarter of one per cent. it makes its appearance in the urine.

But in whichever of these ways the result is produced, the hyperæmia of the liver is always present. Hence it follows that whatever will produce such hyperæmia may produce diabetes, whether it operate through the nerve centres or not. Two cases of diabetes have come under my notice in which the symptoms were preceded by biliary colic and passage of gall-stones. The one has disappeared under treatment, the other remains uncured. Artificial irritation of the liver by needles and galvanic currents has also produced glycosuria. While injuries and diseases of the nervous system are often accompanied by glycosuria, there are many cases in which it is impossible to discover any relation between the two conditions, and not all cases of diabetes, nor even a majority, dare be considered diseases of the nervous system. It is not unlikely that sometimes the hyperæmia of the liver is a reflex one, being caused by irritative influences operating through the pneumogastric nerve (which is the sensory, and not the motor, nerve of the sugar-forming process) upon the diabetic centre, and thence through the vaso-motor nerves in the spinal cord and sympathetic upon the bloodvessels of the liver. Among these reflex relations must be placed derangements of digestion, which, acting upon the end filaments of the pneumogastric, produce the requisite irritation and its reflex results. It must be admitted, however, that there are still many difficulties in the way of explaining the phenomena of diabetes mellitus. Thus, admitting that a certain number of cases, which cannot be due to central nervous lesions or disease, are the result of reflex irritation, how are we to account for the continuation of the symptoms after the irritation has apparently disappeared? Can it be that the liver, once thrown into

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this hyperæmic state, by reason of a sort of inertia, cannot return to its natural condition while such articles of food are given as stimulate its glycogenic function?

In autopsies, alterations in the liver, both of a gross and microscopic character, are sufficiently frequent to make it reasonable that temporary or permanent changes in this organ are at the bottom of a large number of cases of diabetes. These changes are chiefly of size, color, and consistence. The liver is darker and harder, and, while sometimes it is only slightly enlarged, at others it is three times as large as in health. For the more minute changes I must refer you to the books. But it cannot be denied that these changes may be the result of hyperæmia also. Diabetes has been associated, not infrequently, with pancreatic disease.

It is not impossible also that a transient glycosuria—it should scarcely be called saccharine diabetes—may result from an over-ingestion of sugar-forming substances. Any one may produce on himself a glycosuria by the too free consumption of saccharine and amylaceous foods.

Whatever may be the difficulties in the way of explaining the phenomena of diabetes from the standpoint of digestive derangement, that some such relation exists is shown by the result of *treatment*. For by far the most frequently successful plan of treatment is that which excludes saccharine and farinaceous articles from the diet. It occasionally happens that this fails to relieve the symptoms, and when this is the case we may infer that some serious lesion of the nervous system is at the bottom, or more likely, perhaps, that the liver has become secondarily so much altered that it cannot resume its functions, and that now even albuminous foods are being converted into sugar. Of the selected food, that which gives the most satisfactory results is a diet of *pure skimmed milk*, or buttermilk. Our patient has been carefully tested on this system of diet. On referring to the notes, I discover that on October 30th he was passing fifty-six ounces of urine, of a specific gravity of 1029, and containing eighteen grains of sugar per fluidounce. On the day before this he passed seventy-six ounces, specific gravity 1038, and containing twenty-three grains of sugar to the fluidounce. On the thirtieth day he was placed entirely upon a milk diet, and we had an immediate diminution in the amount of sugar passed. On November 1st, there were only ten grains of sugar per ounce; the amount of urine passed in twenty-four hours still remained at fifty-six ounces. Replacing him upon a mixed diet, immediately the quantity of urine and the proportion of sugar rose, to be again reduced on restoring the skim-milk diet.

It is found sometimes that a patient is not able to bear a milk diet, although this occurs less frequently than might be supposed. Pure skimmed milk is to be preferred, chiefly because of its easier assimilation. Some observers, of whom Dr. Donkin is the chief exponent, claim that the skimmed milk has a special curative action, but I cannot see any reason for this. All that is removed from it by skimming is the fat, and fat is not converted into sugar in the liver. It is most interesting to observe that under the use of large quantities of milk how much less urine is passed than fluid ingested. The body weight can easily be maintained on a milk diet, although it is impossible to lay down a rule as to absolute quantity required. I have known the weight to be maintained by two quarts per day, and I have known five and seven a day to be necessary. The milk is best administered at stated intervals and in fixed quantities. I always begin with eight ounces (an ordinary tumblerful) every two hours, increasing as required.

If a milk diet cannot be borne, a restricted diet can be obtained, which is better than a mixed diet. A purely albuminous diet is almost unendurable for any length of time, but there are certain vegetables which contain but a small amount of sugar-producing substance which may be added to meat. Such are the "green" vegetables, including spinach, cabbage, tops of celery, green peas, beans, etc., as well as the acid fruits, and, by a diet such as this, the most surprising results may be obtained. It appears that the vegetable sugars, as those found in berries, are more easily assimilated than cane sugar. Even where a skim-milk diet is well borne, my practice, after the sugar has disappeared, is to gradually add other articles, in the shape of oysters, game, and green vegetables, watching the urine for any return of the sugar; and it is always important to keep a case under observation for some time after sugar has disappeared from the urine.

An article of food which is much missed by some is *bread*, and it is scarcely necessary to say that it is one of the most objectionable, because of the large amount of starch it contains. And I regret to say that I have not found gluten bread a satisfactory substitute. A recent experience will illustrate. I have now under my care, a lady who had been for nine months under treatment for diabetes before I saw her, but in whose case the pure skimmed milk had never been tried. She had finally, in despair of recovery, been allowed to take anything she wanted, and when I first saw her, was drinking a quart of champagne daily to quench her thirst. It is needless to say this was discontinued, and she was put upon a pure skim-milk diet, and an unlimited amount of Apollinaris water. In ten days the sugar had disappeared, and shortly thereafter I permitted the gradual addition of other articles of diet, including green vegetables. All went well until she asked to be allowed to take some gluten bread, which I permitted. In three days I examined the urine, and sugar was again present. The gluten bread was discontinued, and in three days the sugar had disappeared. The resumption of gluten bread was followed by the return of sugar, and its withdrawal by the disappearance of the sugar. Such an experiment is, I think, conclusive. Of course, it is not claimed by the makers of gluten flour, that it is completely free from starch, but as it is already a rather uninviting food in its present state, the inference is, that when it is entirely freed of starch, the bread made from it will be scarcely tolerable. At the same time it must be admitted that the gluten bread contains less starch than the ordinary wheaten bread, and there may be cases in which the starch of the former is assimilated, when the quantity in the latter could not be. The same may be said of the so-called "bran bread," made of unbolted flour. With other substitutes for wheaten flour, as the almond flour of Pavy, bran flour, inulin, etc., I have had no experience.

Are drugs of any use in the treatment of diabetes? I believe they are, although if compelled to rely upon drugs or diet alone, I should prefer diet. The most efficient remedy is probably *codeia*, although I am almost afraid to say this, for a few months ago I should have given the palm to *ergot*, and until recently I have always used it first. The use of ergot is based upon scientific principles, since it is well determined that it exerts a contractile influence upon the walls of bloodvessels, thus counteracting hyperæmia. I have frequently used it, and have no doubt whatever of its efficiency. The best preparation is the fluid extract, which is given in doses of from twenty drops to a fluidrachm four times a day. Codeia is not a new remedy in this disease, having been suggested by Dr. Pavy fifteen years ago. We have found marked results from its use in the case before us. The plan I usually adopt is to begin with half a grain three times a day, gradually increasing the dose, watching its soporific effects,

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as well as that upon the pupil. I have given patients in this house as high as ten grains a day, and fifteen grains a day have been given. In this patient, after giving one and one-half grain a day for a few days, we were struck with the smallness of the pupil, but on discontinuing its use for a short time, we discovered that the patient naturally had a very small pupil.

You may ask, have you ever cured a case with codeia? I cannot say I have; possibly, perhaps, because I should be afraid to rely solely upon it, or any other one drug. But such cases of recovery are reported. As is the case with all diseases difficult to cure, there is in addition to those named, a long list which have been put forth as cures. *Bromide of potassium*, also an old remedy, has recently been again brought forward by the French school as peculiarly efficient. I can easily understand how, in a certain class of cases, it would be of value, as those due to hyperæmia of the brain, cases which may be characterized as nervous. We know that emotional causes are often at the bottom of diabetes. Both mental anxiety and physical fatigue have been known to produce the disease, and when purely emotional causes have operated, the bromides may be beneficial, but I have never found them so.

Within the last few days the medical journals have published the treatment of Dr. Clemens, of Frankfort-on-the-Main, by a solution of what he calls *brom-arsen*, which is probably a bromide of arsenic. Dr. Clemens bestows the most extravagant praises upon the remedy; so extravagant, indeed, that I mistrust it, although arsenic itself has long had a reputation in the treatment of diabetes, and not without reason. I shall, however, make an early test of it. He makes it by adding bromine and arsenious acid to glycerine and water, in such proportions that one drop represents $\frac{1}{10}$th grain[1] of bromide of arsenic. Clemens recommends it to be given, along with a selected diet, beginning with one drop three times a day, and gradually increasing until eight or ten drops are given per day. He gives it in a given quantity until it ceases to have an effect, and then he increases it, one drop at a dose, until, as he claims, the disease is cured. He also recommends the use of the *constant current* from twenty to twenty-four cells, one pole being placed at the nape of the neck and the other over the liver. This has been recommended by other German therapeutists. I believe I have tried most of the other numerous remedies recommended in the books for diabetes, but have found them valueless as to specific effects.

Certain it is that we must make different classes of cases of diabetes, and we should never begin treatment until we have as nearly as possible classified our case in accordance with its course. There are cases which can be easily cured by a selected diet; others in whom, while a cure is apparently impossible, the disease may still be kept in abeyance for years, and the patient is practically well. Others again have had sugar in their urine for many years, and seemed not to be seriously affected by it. These are generally stout persons and past middle life. Clemens says, in the article referred to, that the disease in thin, spare persons is generally due to some nervous lesion, and in stout persons to defective assimilation, and in this he is not far wrong. In other cases still, all treatment seems unavailing. The amount of sugar passed may be reduced by treatment, but the patient does not gain any strength. But I believe there are comparatively few cases which, if discovered sufficiently early, are not amenable to treatment. The disease is occasionally overlooked until it has existed for some time. It is well known that it is very much more serious in young persons—say under twenty years of age—than in adults. Yet within the past two years I have known a young girl of twelve years under the care of one of my professional friends recover completely.

Diabetic patients should be careful about permitting any surgical operation. One of the terminations of the disease is gangrene, to which there is a peculiar tendency, and any operation is apt to be followed by gangrene. A year ago a diabetic under my care in this house was blistered upon the foot, and serious sloughing followed.

Cataract is not an infrequent complication, but the operation is not to be recommended for the reasons above given.

[1] Mr. R. F. Fairthorne, with Mr. James T. Shinn, apothecary, corner of Broad and Spruce Streets, Philadelphia, has prepared for me a solution of bromide of arsenic, in the following manner: 77 grains of metallic arsenic in powder are added in small portions to 240 grains of bromine, the latter being placed in a long test-tube immersed in ice-water to prevent too rapid reaction, which is very violent. One hundred grains of the terbromide thus obtained are then dissolved in sufficient distilled water to make ten fluid-ounces. One minim will then contain one forty-eighth of a grain.

Since the above lecture was delivered, I have tried the remedy in two cases, both using an unselected diet. In the one case it could not be borne on account of an obstinate diarrhœa. In the second there appeared to be no effect on the quantity of sugar or urine, but the patient has gained a pound a week in weight for three weeks. The quantity reached was 8 drops a day, or ½ grain.

ORIGINAL ARTICLES.

BRIEF NOTES ON VARIOLA AND VACCINIA.

BY EZRA M. HUNT, M.D.,
PRESIDENT OF AMERICAN PUBLIC HEALTH ASSOCIATION.

AT the last meeting of the American Public Health Association, in the discussion of a committee report on smallpox and vaccination, the author of this paper, in commenting on the various possible sources of vaccine lymph, enumerated bovine lymph derived from animals which had been inoculated, or which had contracted smallpox. An esteemed member of the Association cautioned against placing a hypothesis so nearly exploded before the unprofessional public. While we claim that there are at present good and perhaps sufficient sources from which to derive vaccine lymph, it is due not less to the art than to the science of medicine that we should know all possible methods of prophylaxis.

We therefore propose to give some facts which seem to us worthy of record, as to the transfer of smallpox to the cow and the subsequent securement of vaccine lymph therefrom. Also to suggest the view that cattle are sometimes inoculated in the act of milking, or in some other way acquire the disease, and that possibly all so-called spontaneous cases of cowpox are but a modified smallpox.

The undenied and undeniable fact that Jenner regarded cowpox as the variolous disease in the cow is well known, and should not be forgotten by those who think he was mistaken. The patient observation of such an authority is of itself of great weight. "Variolæ Vaccinæ" was the name he gave it.

Added to this we long since had the actual results of Mr. R. Ceely, of Aylesbury, whom Simon calls, together with Mr. Marson, "the two highest authorities" in Great Britain (see *Report of Medical Officer of Privy Council*, 1858, p. 8).

The actual fact that both he and afterwards Mr.

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Badcock succeeded in variolating thirty-three kine (about 1837), and that this vaccine lymph came long since to be a part of the vaccine supply of England, is indisputable. Although Mr. Ceely succeeded only twice out of a large number of trials, and Mr. Badcock, of Brighton, in only about 7 per cent. of his variolations, yet this does not disturb the fact that they did each succeed. Besides Mr. Ceely's success in the transfer and protection, Mr. Badcock vaccinated over twenty thousand persons from his stock. In fact, much of what we call Jenner lymph is this, for, as Hart states, "many tens of thousands of persons have been vaccinated with lymph generated by passing smallpox through the cow." Lymph from this source, as used in England, is undistinguishable from the spontaneous cowpox lymph.

The Lyons experimenters, in their failure, gave circulation and credence to the idea that Mr. Ceely mistook a variolous eruption for cowpox vesicles. The abstract of facts, as referred to by Ernest Hart in *The Truth About Vaccination*, page 17, shows that Mr. Chauveau and his colleagues were not well informed as to the details of Ceely's experiments. He knew the "tumid papules" full well, and how to distinguish them from the vaccine pustule. (See Robert Ceely's experiments, *Trans. Prov. Med. and Surg. Asso.*, vol. viii. and x., Surgeon-General's Library, Washington.) Dr. Seaton did not doubt the identity of cowpox and human variola (see Seaton's Hand-book). The facts given by Dr. Hardaway in his *Essentials of Vaccination*, 1882, pages 30–34, are confirmative of these views. It is true that at the Brown Institution, Dr. Klein in 1878 failed to produce vaccinia from human variola in thirty-three trials. But Dr. Buchanan, chief of the Local Government Board, in the report for 1879–80 (page 10), says as follows:

"Investigation into the evidences of pathological identity between smallpox and cowpox was made by Dr. Klein during the year 1878–79. Like Gasner, Thiele, and Ceely, he attempted to produce vaccinia in the *calf* by inoculating the animal with human variola; but hitherto his results have so far differed from theirs, that in thirty-three instances his experiments have failed of producing recognizable vaccinia. Yet there is nothing in these observations that can safely be regarded as disproving the transmissiblility of one into the other disease; no doubt the conditions for the transmutation are not yet understood. But there are indications that the affirmative result obtained in a certain proportion of cases by the earlier observers may turn out to be an affair of conditions and circumstances of experiment. Particularly a note appended to Dr. Klein's tabular report (pages 135–142 *cit.*), is of interest in this respect as showing how some unascertained difference in conditions of experiment have yielded in his hands very different results from those of the French Commission in 1865." The success of Dr. Voigt, Supt. Vaccine of Hamburg, whose treatise has been recently translated (see *N. C. Med. Journal*, Dec. 1882), seems to us to settle the question as to the feasibility of producing variola-vaccinia.

In 1830 Dr. Sonderland claimed to have excited variola in cows by enveloping them in infected bed-clothing. A statement made by Dr. Abbott, of Wakefield, Massachusetts, at the last meeting of the American Public Health Association, and to me personally by Dr. Ribble, of Trenton, also seems to suggest the probable transfer in a similar way.

Taking together the views of Jenner, Gassner, Ceely, Badcock, Thiele, Seaton, Voigt, and others, we are surprised that a belief in this source of lymph, and perhaps of this origin of so-called spontaneous cowpox, is not more common. To these, however, we desire to add two reliable testimonies in this country. Dr. Horatio Adams, of Waltham, Massachusetts, in an address entitled "Investigations upon the Subject of Vaccination," read at the annual meeting of the Massachusetts Medical Society, May 26, 1858, uses the following language and gives the following detail of his experiments:

"The fact is probably familiar to all, that within the last twenty years it has been shown that the cowpox can be produced by inoculating the cow with variolous matter. In the October number of the *British and Foreign Med. Review*, for 1839, may be found an account of Mr. Ceely's experiment of inoculating the cow. Soon after this in conversation with a gentleman, whom, in the words of another, I am privileged also to call my teacher, my physician, my friend, James Jackson, it was arranged that the writer should repeat Mr. Ceely's experiment as soon as pure smallpox matter for the purpose could be procured. A brief account of this experiment, the first it is believed that was ever performed in this country with successful results, may not be out of place here.

"On the 11th of January, 1840, I made several punctures with the point of a lancet under the cuticle on the right labium pudendi of two different cows; none of the punctures were sufficiently deep to draw blood. Into each of them was introduced a pointed quill well deluged with variolous matter, and allowed to remain for half an hour.

"On 15th, the punctures were barely visible, but not apparently inflamed.

"On 16th, two of the punctures made on the youngest cow were more distinctly visible; in drawing the finger over them, a slight hardness was felt. None of the other punctures had inflamed.

"*17th.*—These two punctures were more inflamed and a little raised, showing a pearly white, flat top, rather small.

"*18th.*—Punctures larger than yesterday, and each capped with a pearly white, flat vesicle, with centre depressed.

"*19th.*—The punctures (now vesicles) are enlarged, centres depressed.

"*20th.*—Each of the vesicles is nearly four lines in diameter; surface pearly white, flat, with centres depressed, areola not formed, slight crust in centre. This P.M., end of ninth day of disease, punctured one of the vesicles; found cuticle thick, spongy and breaking, like what is seen when a vaccine vesicle is early punctured on the arm. Vesicle distinctly cellular. Transparent lymph oozed from the opening, with which I charged twenty quills. Cow appears perfectly well.

"*21st.*—No material change.

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"*22d.*—Vesicle larger and more full, areola forming. Dipped several quills to-day; lymph pellucid. Drs. J. D. Fisher, C. Putnam, and Gregerson examined the case to-day.

"*23d.*—Crust forming rapidly, areola somewhat increased in extent, three-fourths of an inch in diameter, round and regular, and somewhat raised above surrounding skin. Cow eats as usual. From this date disease rapidly subsided; a very dark crust was soon formed. On 27th, Drs. Fisher and Putnam brought me virus taken from a child vaccinated on the 21st instant, with the matter taken from this cow. The vesicle, as they both affirmed, exhibited the characteristic marks of the true cowpox on the sixth day of the disease. Many persons were subsequently vaccinated with matter taken from this cow, and in every instance the true vaccine disease was the result.

"This discovery of the identity, or rather, I should say, this proof of the identity of the vaccine and variolous diseases, is the most important fact observed in relation to the cowpox since the original discovery of Dr. Jenner. For if any doubt should ever arise as to the genuineness of the virus in use, or if it should at any time be lost, as it frequently may be in certain localities, and smallpox makes its appearance, it can be reproduced with certainty by inoculating the cow with smallpox virus."

The large experience of Dr. Adams, and the facts as detailed, leave no doubt as to the reality of his success.

A few months since I had a conversation with Dr. W. C. Van Bibber, of Baltimore, who related to me a series of facts which interested me so much that I asked him to communicate a brief outline by letter. He was so kind as to forward me the accompanying statement, which speaks for itself:

"When I came here in 1845, I found vaccine matter then in the hands of Dr. Peter Chataud, who had been in the practice of medicine here for fifty years. He was one of the originators of vaccination here—and had such enthusiasm that after vaccinating his sons he sent them into the room of a variolous patient. This was in order to establish popular confidence.

"During 1845, '46, and '47, variola was epidemic here. The late Dr. Levin S. Joynes and myself studied it together.

"Dr. William Seward was the "city physician." He inoculated a cow; that is, took matter from an eighth day variola pustule, and inoculated it into the shaved udder of a three year old heifer.

"Dr. Joynes and myself obtained some of this matter, and carefully compared its pustules with the other matter.

"The entire subject here was then much discussed by the old doctors and the young. I was then among the latter.

"I can give some of the points there observed, and can now follow or supplement them by results.

"I had a large acquaintance around the city, and supplied vaccine matter, in crusts at that time, largely. This was then the only source of supply country physicians had. Any one who would supply his professional brethren on call with vaccine matter, was considered a friend in need. I can give some points of information on the matters then under discussion and observation, and which have as yet not been entirely decided.

"Again, in 1852, Dr. Samuel Knight was 'city physician.' An epidemic of variola appeared, not as extensive as that of '45, but still it was bad. Dr. Knight went to the smallpox hospital and took a skein of silk which he charged heavily with lymph from eighth day pustules.

"He had a four years old cow in his own stable on Pearl street. He shaved the udder of the cow and made superficial incisions in its skin. Into these furrows he drew the charged silk, and made a very bold application of the matter. The cow went through a severe disease, and the eruption was very nearly, but not exactly on time; that is, it was not umbilicated on the the fifth day, but continued vesicular until the ninth day. On the tenth, eleventh, and twelfth days the cow did not rise up nor eat. She evidently had a high fever, as shown by her appearance, quick respiration, and thirst. Thermometers were not used then. There were many pustules over the body of the cow; about thirty of them, principally from the udder and belly, were preserved. I selected two for my own use. They were circular; about three-eighths of an inch in diameter; dark mahogany color, with cellular markings, uniform thickness, umbilicated, dry, and hard; having been removed by the finger-nail from the udder on the twenty-third day after the operation. I was the first one to use the virus of one of these crusts. I vaccinated a healthy German five months infant upon the left arm near the insertion of the deltoid in two places. Other physicians saw the case with me during its progress, old physicians and young ones. Amongst the elder ones, I may mention as now living Dr. Ferdinand Chataud, son of Dr. Peter Chataud, and Dr. Thomas Buckler, now living in Paris; Dr. McKenzie and Dr. John Odderman and others, who are dead. They were experienced vaccinators with the original matter which I found here. The vaccinations took in both places, and one proved larger than the other, as is generally the case. But the points were papular to the end of the second day; commenced to be vesicular at the end of the third; umbilicated at the end of the fifth; round and full at end of eighth; and then commencing to be opaque. The areola was large; the fever high on the ninth and tenth days, subsiding on the end of the latter day. The pustules desiccated until the twenty-second day, and when removed, the epidermis beneath them was dry. They had all the marks of a good crust; regularly round, dark color, uniform thickness, umbilicated, cellular markings, dry and hard.

"I then dropped all my old matter and used this, supplying it largely throughout this city, this State, and adjoining States.

"I have never known any one who I vaccinated with this matter to take the varioloid, although I have known numbers to be exposed to the disease.

"I kept this matter alive, active, and largely disseminated for twenty years. About 1871 or '72, M. Lanoix, M.D., from France, came here for the

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purpose of introducing the Beaugency matter. He came here from the house of Milhau of New York, and established a vaccine farm near Petersburg, Virginia. My brother-in-law, Dr. Ferdinand Chataud, entertained him. At this entertainment the subject of vaccine was discussed. Lanoix maintained that when the matter was taken from the calf there was no danger of spreading other poisons, as syphilis, scrofula, etc. Unwilling to give up my old matter, which had apparently answered so well, I asked the question "which, as a general thing, is the most healthy animal, a calf or a baby?" It seemed to be the opinion of the majority present that the calf was the most healthy. But, in revenge, I contended that it was a poor doctor who could not select a healthy baby. However, public opinion forced men to give up my matter, although Dr. John Morris and others here urged me to keep on supplying them. But soon a vaccine physician was appointed, the late Dr. Registar, and every one used the "animal" virus. Gradually I have lost trace of my old stock. In this way I have seen, used, and taken great interest in vaccine matter from four different supplies. First, from 1845, the vaccine matter which I found here as used by the older phyicians then practising here, who had obtained it from some original European supply, I do not know where. Then about 1847, I used the Seward supply, but did not give up entirely the original matter until 1852, when I used the "Knight" supply to the exclusion of all others. And since probably 1876, I have used none other than the "animal" matter, as propagated by Dr. Martin and others from the Beaugency supply. Dr. Chataud did not like the matter as supplied by Dr. Lanoix, nor did I.

"I can get all the facts, dates, and observations to fill up this rough sketch, my Dear Doctor, if they will be of any use to you or others, and meanwhile believe me to be, with much respect," etc.

In the light of recent facts such as have been brought to notice by Pasteur, Koch, and others, and of the embarrassments which may yet come to attach to the production of lymph from "spontaneous cowpox," about which there is still dispute whether any case has occurred in this country, it is not unwise to put on record these facts.

Even if the first lymph from a variolated cow might be over-severe, or if there might be a risk of mistaking the "tumid papules" of the variola for the lymph-bearers of vaccinia, it is not unlikely that the repetition from calf to calf might furnish an attenuated lymph sufficiently protective. If so, would it not be purer in its origin, and at the same time furnish us a mode of renewal of supply more uniform than the present dependency upon stocks already far removed and probably not now propagated in distinct lines?

We are not of those who doubt the reality of present protective methods, or who would advocate resort to experiments of this character, except under some special State or Government sanction or direction. But fealty to science, to art, and to series of facts thus authenticated, makes it proper to put on record this testimony. All the more because of the great experience of Voigt in bovine lymph, and of the important opinion which he gives when he says, "As a zealous promoter of animal vaccine, which has become indispensable to me, I will not insist again upon its usefulness; but, in conclusion, I will point out that it should be *regenerated betimes* in order that it may maintain its full energy. *To me it seems that animal vaccine* needs such regeneration quicker than the humanized."

TRENTON, N. J., February 14, 1883.

A CASE OF ŒDEMA UVULÆ, THREATENING THE LIFE OF THE PATIENT.

BY CHARLES H. CARTER, M.D.,
OF CHICAGO, ILL.

A FEW weeks since I was consulted by Mr. N., æt. 19, for a "sore throat." This was about 9 A.M., and he had felt no inconvenience till, upon rising that morning, he experienced considerable difficulty and pain in swallowing his breakfast; otherwise, he felt, to use his own phrase, "all right."

Upon examination I found a moderate congestion of the whole post-oral cavity. Tonsils and soft palate slightly swollen, the mucous membrane dry and shiny. Temperature 99½°; pulse 84; tongue clean but dry, and some thirst. No headache or other pain. Had had no chill, nor chilly sensations. Slept well the preceding night, and, notwithstanding the pain caused by the act of deglutition, he ate his breakfast with the usual relish. In short, he had no subjective symptoms indicating that he had "caught a cold," other than the soreness in the throat, and had undergone no unusual exposure.

Calling it a simple pharyngitis, I ordered a seidlitz powder, a solution of potassium chlorate as a gargle, and a flannel around the neck. Knowing him to be of good habits, and he being a furniture upholsterer, working indoors, I had no hesitation in permitting him to continue work as usual. I advised him to consult me again at the same hour the following day, and thought no more of the case, until one o'clock next morning I was aroused by an anxious ringing at my doorbell, and upon attending to it, I was informed by an almost breathless messenger that Mr. N. was dying—choking to death. I subdued a half-uttered "impossible!" and not waiting for any further explanation, and thinking of œdema glottidis or an unusually sudden and excessive swelling of the tonsils, etc., I dressed myself with all possible haste, and was soon at the residence of my patient. A truly terrible spectacle presented itself to my view. He was certainly struggling against impending suffocation, and that with fearful odds. The location of the obstruction, however, was at once apparent, for he was sitting with his head bowed forward, holding the stem of a tobacco-pipe in his mouth, breathing *through* it. A glance into his mouth revealed the cause of his dyspnœa. His uvula was so large that it completely filled the whole inter-tonsillar space and pressed hard upon the dorsum of the tongue, and as he could not breathe through his nose, the uvula and palate evidently closed that passage also.

The œdematous uvula resembled a bladder filled with clear water, and was so distended as to be

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almost transparent. I quickly punctured it at several points on its anterior surface with a bistoury. This lessened its size in that portion, but had no effect on the unpunctured sides. Passing a spatula under it and turning it up edgewise, gave him plenty of breathing room, and his dyspnœa was at once relieved, the air then having ready access to the glottis, which was obviously unaffected. Drawing the uvula forward from each side with a tenaculum, I successively drained its lateral and inferior surfaces. He had now no further use for the spatula, and felt comfortable, but almost exhausted. Now passing a loop of stiff wire behind the uvula and drawing it forward, I riddled the posterior surface with the point of the tenaculum, and finally I transfixed the body of the uvula twice from before backwards with a small tenotomy knife. This being done, he could respire through the nose with ease.

All this scarification and transfixion drew only a few drops of blood, and were almost painless.

The uvula now hung in a flabby, irregular, wrinkled mass, apparently having lost all contractility, its lower extremity lying upon dorsum of tongue, but leaving a small space open on each side. The tonsils were more swollen, but paler, than on the morning before. Temperature now 102°; pulse 108, and weak.

Deeming an astringent indicated, I added tannic acid, gr. x to ℥j, to his chlorate of potassium solution as a gargle, and left him happier than I found him.

A bilateral suppurative tonsillitis followed, but its course was thenceforward typical, and ended in complete recovery in two weeks, under the use of warm poultices, externally and my usual "let-alone" treatment of such cases, internally. I have rarely found it necessary or even advisable to resort to incision to expedite the evacuation of the pus, nature, in most cases, being surgically self-sufficient.

I have frequently noted a moderate degree of œdema uvulæ in connection with pharyngitis or tonsillitis, but never before of such prominence as to be more than a minor accompaniment. In this case it was the disease *per se*, and the other pathological phenomena the complications.

The above case is, in my experience, unique, and judging from the very slight references or even silence of authors on diseases of the throat, concerning œdema uvulæ, such cases must be very rare. My patient was thoroughly convinced that his time had come, and this also was the conviction of all the anxious spectators of his struggle for life. He stated that the swelling in his throat had gradually increased after seeing me in the morning, but he had had no difficulty in breathing through his nose till about half an hour before sending for me, and this increased rapidly till that source of oxygen was also cut off, and then, in some way or other, in his desperation, he seized the pipestem and forced the end of it into his throat, and felt the air pass through it, though in very inadequate quantity, and held it there till I arrived. I have no doubt that by means of this simple though much abused instrument, he was rescued from being asphyxiated, before help could be procured. He said he did not think of the pipestem being a *tube* when he inserted it into his mouth. Did not know what was his object in using it. In fact, did not remember anything about the pipestem up to the time when he felt the air passing through it. So much in favor of the clay-pipe. This one was not made in vain.

The above case being interesting and novel to me, I have thought it worth relating for the readers of THE MEDICAL NEWS. No doubt some will be as much surprised as I was, to know that so insignificant a part of the economy as the uvula may *thus jeopardize life*. Others may have seen similar cases. If so, I for one, would be gratified to see them reported.

1198 MILWAUKEE AVENUE.

MURIATE OF QUININE.

(QUININÆ HYDROCHLORAS, U. S. P., 1880.)

BY JOSEPH MIXSELL, M.A., M.D.,
OF PHILADELPHIA.

CUSTOM and habit together have bound each successive generation of physicians to the exclusive use of certain combinations of drugs whose choice was originally the result of accident or commercial convenience.

This assertion will be studied in the present instance in its bearings upon the medicinal application of the principal alkaloids derived from cinchona; as of these, quinine has deservingly occupied the most prominent position in therapeutics, its selection, as an example, will be assumed as most proper.

This substance has been quoted ever since its discovery and isolation—in combination with sulphuric acid, in its familiar form as the sulphate of quinine—by all writers with but few exceptions, to the extent of obtaining tacit recognition as the standard or normal state of the drug, few reporters ever specifying the salt by title; and several high authorities confirming this usage by explicitly calling attention to the fact that whenever the expression quinia (quinina, 1880) is used the reader will understand that the sulphate of quinia is intended.

The writer was led to the examination and employment in practice of the combination of hydrochloric acid with this and associated alkaloids, through the ideas suggested by observing that the valuable and interesting experiments of E. Buchanan Baxter, M.D., London ("Action of Cinchona Alkaloids, etc., on Bacteria," *Practitioner*, Nov. 1873), were conducted exclusively with solutions of the hydrochlorates of the alkaloids. Reference to the standard works on pharmacology in general use in this country, showed complete indifference on the part of authors and editors on this subject, until the publication in 1879 of a portion of Phillip's *Mat. Med. and Therapeutics* ("Wood's Library Standard Medical Authors," N. Y.), where brief allusion is made to the experiments of Dr. Baxter—in their microscopical and toxicological bearings, without suggesting their possible importance in the light of therapeutics.

The *National Dispensatory* (Stillé & Maisch, second edition, Philadelphia, August, 1879), after

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devoting over fourteen pages to the consideration of quinia (quinina) as a sulphate, gives just as many lines to the description of the hydrochlorate—hidden from observation by association with the other little known salts under the caption "valerianate of quinia." The *United States Dispensatory* (Wood & Bache, fourteenth edition, Philadelphia) merely alludes to the existence of these salts, in the same category with the fanciful combinations, as the lactate, arseniate, etc., without a word of commendation.

The *Pharmacopœia of the United States*, sixth revision, introduces this salt for the first time as an officinal along with the sulphate, bi-sulphate, hydrobromate, and valerianate, and the uncombined alkaloid; from the purely pharmaceutic character of this work in its present state of incompleteness, no information is obtainable save that of chemical characteristics. The impressions of the writer, then, are based entirely upon the experience obtained by the opportunities afforded within the necessarily limited field of private practice, and this under the serious obstacle of an almost prohibitory price demanded by the manufacturers and dispensers of the substance; and it has only been by direct persistent personal effort that at the present time this salt is placed within the reach of patients in moderate circumstances. In this connection he is compelled to refer to the unfair discrimination on the part of the large producers of these salts in favor of the commercial sulphate and its associate the bi-sulphate. That this is entirely based upon commercial prejudices is beyond question, the writer having received the most respectful attention in his direct application to all the large manufacturers of the derivatives of cinchona bark in the United States, but with such moderate success in obtaining concessions in price as to dishearten him as to the use of further individual effort. The therapeutic harmony of this combination of either of the cinchona alkaloids will occur to the mind of the careful prescriber as of peculiar fitness; but not upon this alone does the writer urge the claims of the muriates, which may be enumerated as follows:

I. *The advantage of superior alkaloidal strength;* II. *More rational therapeutic combination;* III. *Prompt action—due to speedy absorption;* IV. *Extensive range of pharmaceutic compatibility;* V. *Ready solubility without aid of acid;* VI. *Toleration by stomach or rectum.*

The comparative richness in the basic element is thus well shown.

The theory of its composition, as formulated in the *United States Pharmacopœia* of 1880—$C_{20}H_{24}N_2O$, $HCl2H_2O$, requires a percentage of quinine of 81.71; that of the sulphate being 73.5 (*misstated on page 1212 of the National Dispensatory, second edition, as 85.0*), and the bi-sulphate 59.1, a difference in favor of the muriate of respectively 8.21 and 22.6 per cent.

By actual analysis made with great care and in every instance verified by the process known as "acid determination"—whereby the most common source of error in the estimation of quinine strength is avoided, that of the invariable loss in washing the precipitate whenever the "direct process" is employed (by the kind assistance of Edward Hart, Ph.D. [J. Hopkins], Professor of Analytical Chemistry, Scientific Department Lafayette College, Easton, Pennsylvania, 1880)—it was found that an actual alkaloidal yield of from 81.4 to 84 per cent. was obtained, probably due to the loss of some of the water of crystallization.

The identity of therapeutic applicability possessed by quinine and hydrochloric acid will be questioned by few, both exhibiting azymotic powers in the highest degree.

The quality of readiness of absorption is probably its most valuable attribute. Where promptness of action is desirable, as in the anticipation of the chill in the pernicious form of malarial toxæmia, or where, through the unfavorable condition of the oral and gastric surfaces, due to the accumulation of epithelium and inspissated mucus, the less assimilable forms of quinine do not obtain access to the absorbing tissues, the muriate, from its relations to the fluids of the body, will obtain entrance to the circulation to a degree surprising to those unfamiliar with this peculiar power.

Its chemical relationships give it a wider range of pharmaceutic combination than the sulphates possess.

In the familiar instance of the almost classic prescription of the alcoholic solution of chloride of iron, alone or with potassium chlorate, with quinine, which is usually specified as in the form of sulphate, a most disagreeable and unscientific result is obtained, that of a precipitate of a portion of the iron in the form of a gummy sediment—a basic sulphate, similar to the styptic salt of Monsel; it is true that this is often avoided by the skilful pharmacist, by converting the quinia into an acid salt by the addition of a few drops of hydrochloric acid before combining it with the iron solution, but this is not to be relied upon, and may result in the dispensing of an almost corrosive mixture in place of the neutral one intended. The substitution of the muriate for the sulphate of quinine will obviate this difficulty; so too with potassium iodide or bromide, although owing to the presence in the commercial salts of a small amount of potassium carbonate, the addition of an amount of hydriodic or hydrobromic acid is needed to ensure the absence of precipitation.

Ready solubility in watery or alcoholic fluids, nearly equal to that of the much advertised bi-sulphate, far greater than that of the commercial or neutral sulphate. Although much stress has been laid upon the great advantage possessed by the acid sulphate over its older companion, clinical experimenters seem to have overlooked the counterbalancing disadvantages of increased dose, and, until the bubble was burst in the "wars of the pill-makers," increased cost. Although the writer's lack of time and opportunity has not permitted him to apply other than clinical tests to the comparison of the muriate with all other forms of quinine administration, he is still convinced of the equal solubility of this salt in the gastric fluid, as shown by the very simple and unquestionable test afforded by the production of cinchonism. In the practical employ-

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ment of this salt, it will be found that the addition of a few drops of strong alcohol to a gramme of the muriate will render the crystals so permeable that the addition of a very moderate amount of water will effect a perfect solution—this in view of the effects shown in the paper of Dr. Baxter, *loc. cit.*, upon bacteria growth, has led to its trial as a local application in diphtheritic angina, by brushing the exuding surface every hour or two with a saturated solution prepared as mentioned, or with the addition of aqua chlorinii, with apparent advantage in limiting the disease to its original locality. The stomach will tolerate this, if properly administered, when other salts of quinine are promptly ejected.

The absurdity in the practical work of medicine, of compromising the activity of medicinal agents, by so combining them as to procure immunity from taste at the expense of solubility in the fluids of the stomach, is nowhere so glaring as in the various devices by which both practitioner and pharmacists have from time to time conspired against the welfare of their patients and patrons, in their dealing with this life-saving drug. The tannate will represent the most aggravated instance of this misconception; however valuable where its *acid* constituent is the one needed, as a means of administering quinine it is irrational and unscientific. Nausea is not always, nor even often, produced by taste, and when the stomach is irritable and disposed to reject anything placed within it, it will be found least apt to do so with *neutral* solutions. In the bilious remittents found along the water-courses draining into the Lehigh Valley—when the remission was so feebly separated from the pyrexia that the whole intestinal tract was in a state of exalted sensibility throughout the entire cycle of twenty-four hours, with rejection of everything administered as food or medicine—this combination of quinine has been successfully administered (in sufficient doses to obtain its apyretic influence), dissolved in freshly tapped champagne, without a word of complaint from the patient. With an experience of nearly twenty years spent in the dispensing and prescription of this remedy, in its several forms, the writer is disposed to regard as the ideal mode of its administration that of "*capsulation*" IN THE DRY WAY, *i. e.*, while yet in the crystalline state, *without* the preliminary operation of forming a pill mass; the latter is chiefly objectionable on account of the usual addition of some gummy excipient, which speedily hardens, rendering the salts less soluble than when discrete in the crystalline state, often ensuring gastric or enteric disturbance through mechanical irritation from slow solution.

If given in champagne or other spirituous or syrupy vehicle, a solution should be prepared as directed for topical application before addition, to insure complete admixture. The rectum will most readily tolerate and promptly absorb this salt, which can be introduced by enema of simple watery solution, or by suppository—the *hollow* variety affording the simplest means of placing it within reach of the absorbing tract.

In concluding this very incomplete *résumé* of the reasons entitling this little-used group of salts to our earnest consideration, the sole objection to their frequent substitution for those in common use—that of costliness—will bear a parting word. That this is not an insuperable obstacle may thus be shown:

The main cost to the makers of all the cinchona salts is that of the extraction of the alkaloids from the bark; so that it may be fairly assumed that the cost of either of the salts of quinine to the manufacturer would be principally that of the relative amounts of the alkaloid required to produce a given weight of any one of them. Admitting the correctness of this proposition, if the cost of producing one ounce of the commercial sulphate of quinine, requiring the outlay of 73.5 per cent. of its weight of the alkaloid, is at present somewhat less than $1.80, the cost of any salt would bear a definite relation to this fundamental representative. Thus, in estimating the value of the muriate, 73.5 : $1.80 : : 81.17 : $2.00. Or, as to the bi-sulphate, 73.5 : $1.80 : : 59.1 : $1.45.

To divest this statement of all complexity, it will suffice to claim that if the manufacturer can produce and sell at a profit, an ounce of a combination of which the costly element is represented by 73.5 parts to the hundred, at $1.80, a second combination containing in every hundred parts 81.7 of the same costly ingredient, should be offered at the relative price of $2.00, or a third combination in which there is contained only 59.1 per cent. at its true value based upon its relative composition, $1.45.

It is, however, due to the makers of these salts to admit that the cost of material is not absolutely the only factor in the disparity of trade and therapeutic value. By reason of the vast consumption of the sulphates their crystallization is effected on so extensive a scale that labor and apparatus are both reduced to a minimum of expense; while that which to us, as therapeutists, constitutes a great advantage—the extreme solubility of the hydrochlorates—is commercially a disadvantage, rendering their separation from the mother-liquor tedious and difficult, demanding a higher grade of intelligence on the part of those conducting the operation, hence enhanced cost of labor; still another impediment to parity in expense of production is found in the character of the material from which the vessels for evaporation, etc., are made, porcelain or wedgewood-ware alone being suitable.

A portion of this cause of expense can be dispensed with by the presentation of the salt in its amorphous form, found by Kerner, of Frankfort (*Practitioner*, March, 1873), to be equally active, if not superior, to the crystallized form. This is not procurable in this city, in its isolated form, the nearest approach to it being the "muriate of quinquinia," of "The Charles T. White Co.," of N. Y., a residual product of quinine manufacture of variable composition, containing always about 20 per cent. of crystallizable quinine.

The well-known house of W. H. Schieffelin & Co., of New York City, have, at the suggestion of the writer, included the muriate of quinine in their list of gelatine-coated pills.

Through the enterprise of Messrs. Keaseby &

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Mattison, of Philadelphia, the hydrochlorate of cinchonidine was placed before the profession in December, 1880; but, from the extreme solubility of the salt and the resultant difficulty of presenting it in a crystalline state, its costliness proved a bar to its general adoption.

The hydrochlorate of cinchonine is made in large quantities, and has been sold for a long time; not, however, without the suspicion of entering largely into the adulteration of the sulphate of quinine, which it closely resembles, at the hands of fraudulent pill-makers and jobbers, whose sales are made in the remoter portions of our country.

With a favorable impression of the utility of the "unbleached or hospital quinine," only presented as a sulphate, the writer suggests its production as a hydrochlorate, that the most needy may not be debarred from the use of the most active remedies.

Finally, no credit is claimed by the writer for his comparatively superficial, although always practical, researches in this field. The paper is placed before the readers of "THE NEWS" that it may be tried as to its worth, and save others the labor and expense its preparation incurred.

NOTE.—The *United States Dispensatory* (Wood, Remington, and Sadtler, 1883), just issued, confirms the writer's assertion that medical authorities, as a rule, show positive lack of acquaintance with the theoretical as well as practical superiority of the hydrochlorate over the sulphates; this combination being dismissed by the above-named compilers with a careless remark as to its intrusion among the officinals without good reason.

No excuse can be offered for so glaring an omission; simple inquiry of either of the great quinine-producing establishments of this city would have shown that since the earlier efforts of the writer to familiarize the profession with the usefulness of this and other muriates [annual meeting Lehigh Valley Medical Association, Bethlehem, Pa., August, 1880, reported in *Trans. Med. Soc. of Penn.*, vol. xiii., part 2], the salt is in active demand, hundreds of ounces being produced where formerly it was rarely called for.

822 N. TWENTY-FIRST ST., PHILADA., Jan. 1, 1883.

HOSPITAL NOTES.

ST. JOSEPH'S HOSPITAL, PATERSON, N. J.

Service of G. H. BALLERAY, M.D.

SUB-PERITONEAL HÆMATOCELE.

(Reported by JAMES W. SMITH, M.D., House Surgeon.)

A CASE of sub-peritoneal hæmatocele was admitted into the hospital in December, 1881. The patient was 26 years of age, the mother of four children, the last two of which were twins, and were born in April, 1881. The menses appeared during the last week in October, reappeared in three weeks, and after being absent one week, returned, accompanied by pain in the back, and continued up to the time of her admission to hospital. Two weeks before admission, a substance was expelled from the vagina, which, according to the description of the patient, "resembled the lining of a chicken's intestine."

On admission, the patient was in the following condition: Pulse 112, very feeble, face pale, lips blanched, abdomen tympanitic, temperature normal. The discharge from the uterus resembled lochia, and was somewhat offensive. Physical examination revealed a tumor, rising about three inches above the brim of the pelvis, globular in form and regular in outline. This tumor was situated to the left of the median line; several other large masses, of irregular outline, could be felt through the thin abdominal walls, at different points in the abdomen. Per vaginam, the cervix uteri was found crowded over to the right, and pressed up so closely against the pubes, that it was reached with difficulty. When the os was reached, it was found patulous, admitting the index finger easily for some distance. By conjoined manipulation, the smooth globular tumor felt above the brim of the pelvis, was found to be continuous with the cervix. To the left of, and posterior to the uterus, a large, smooth, slightly fluctuating tumor could be felt, which was continuous with the uterus, and but slightly tender to the touch.

The patient being in a very critical condition, a consultation was called, the day after she was admitted to the hospital, with a view to obtaining the opinion of the staff as to the nature of the case and the advisability of an operation. The opinions of the members of the staff differed widely as to the nature of the case, and, consequently, as to the best treatment to adopt. Drs. Balleray, Van Riper, and Calvin Terriberry, were of the opinion that the case was one of extra-uterine pregnancy; while Dr. Marsh thought it might be a case of malignant disease,[1] and Dr. Quinn believed it to be a morbid growth connected with the uterus and bound down in the pelvis, but in no way connected with gestation.

It was finally decided to aspirate the fluctuating mass in the vagina. The aspirator needle was plunged into the mass, but nothing was obtained but a small quantity of dark, bloody fluid, containing numerous small, dark coagula. This caused Dr. Balleray to modify his diagnosis. He then expressed the opinion that the case was one of sub-peritoneal hæmatocele, due to rupture of the Fallopian tube, at its lower part, at an early stage of tubal pregnancy, and an escape of its contents, together with a considerable effusion of blood, between the layers of the broad ligament; and some inflammatory exudation in the surrounding tissues. The patient was put to bed, perfect quiet ordered, with nourishing liquid food and some stimulants; the vagina to be syringed out twice daily with hot water, followed by a weak carbolic lotion. On the fifth day after the aspiration, the pulse became more frequent and the temperature began to rise.

On the seventh day, Dr. Balleray observed, while making a digital vaginal examination, that the discharge was increased in amount, and more offensive than usual. He therefore suspected that a portion of it came from one of the openings made with the aspirator. The following morning the patient's pulse was 120, temperature 103.4°. She was placed on the operating table in Sims' position, and Sims' speculum was introduced, and the posterior vaginal wall retracted. It was then found that a grumous, dark, bloody, offensive discharge was issuing from the opening made with the largest aspirator needle. A free incision was made into the softest part of the tumor with a bistoury, when about two ounces of thick, dark, grumous, bloody

[1] Dr. Marsh formed this opinion from the feel of the hard, irregular masses before referred to, which were to be felt in different portions of the abdomen. Dr. Balleray, however, thought that these masses were fecal accumulations, and this opinion proved to be correct, as they were subsequently removed by repeated large enemata containing ox-gall.

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fluid escaped; together with considerable débris of blood-clot. The patient was then put to bed, and the nurse directed to continue the vaginal injections.

The following morning the temperature was 102°, pulse 108. The patient was again placed on the table, a soft catheter introduced into the opening made with the bistoury the previous day, and a weak, warm carbolic acid solution was injected into the cavity. The catheter passed in to the depth of three and a half inches. By means of the injections, dark, broken-down, offensive coagula were removed. The injections into the cavity were repeated daily, and the vaginal injections continued. On the fourth day after the operation, some exceedingly foul-smelling material, resembling a mixture of pus and débris of partially organized blood-clot, was removed by the injection. After this the temperature fell to 100°, and never rose again above that point. The injections were resorted to daily for nine days, after that only every second day for some time longer.

At the end of three weeks the cavity had contracted so that it would not hold a half ounce of fluid; the swelling previously felt in the vagina had almost entirely disappeared; the cervix was in its normal position, and the fundus no longer to be felt above the pubes. At the end of four weeks the artificial opening had closed; the patient's appetite was good, the temperature and pulse normal; in short, convalescence was fully established. The patient returned to her home in Passaic city, and is now in good health.

The interest of this case attaches to the diagnosis. What was the cause of the hæmatocele?

If it was due to rupture of the Fallopian tube at an early stage of tubal pregnancy, then the woman ought to have had some of the symptoms of pregnancy previous to the accident, but the fact is that these were entirely wanting. She ought also to have manifested some symptoms of shock at the time that the rupture occurred, but no such symptoms were observed. On the other hand, what other condition than that to which they were attributed could have given rise to the enlargement of the uterus, the patulous os, and the discharge of a deciduous membrane? The treatment was justified by the result. Those who saw the patient were convinced that she recovered *in consequence* of the treatment, not, as very often occurs, in spite of it.

MEDICAL PROGRESS.

THE RELATION OF MICRO-ORGANISMS TO TUBERCULOSIS.—MR. W. WATSON CHEYNE, in a report to the Association for the Advancement of Medicine by Research, holds that when the tubercle-bacilli reach the alveolus of a lung which is in a suitable condition for their growth, they develop in the epithelial cells lining the alveolus. This alveolus becomes filled with cells, neighboring alveoli become affected, and the same process goes on in them. The further result will depend on the number and growth of the bacilli, and on whether the patient is a good soil for their development. If they develop well, we have caseous pneumonia; if they grow slowly and with difficulty, we have fibroid phthisis. In the former case, the alveoli become early distended with epithelioid cells; inflammation of the walls of the alveoli ensues; the epithelioid cells soon undergo caseous degeneration; and the presence of the masses leads to atrophy and sloughing of the walls of the alveoli. Infection of neighboring parts of the lung occurs by continuity, and also by partial coughing up, and re-inhalation of the bacilli into other parts of the lung. In this rapid phthisis, fibrous formation around the alveoli only takes place imperfectly, and the lung rapidly breaks down.

In the case of fibroid phthisis, the bacilli are few, and grow only with difficulty. Thus fibrous formation occurs extensively, and giant-cells are entangled in this fibrous tissue. In parts, however, the process may be more rapid, and these cheesy masses are found, which may lead to breaking down of the lungs and the formation of cavities.—*British Medical Journal*, March 17, 1883.

THE ANTIPYRETIC ACTION OF KAIRIN.—At the meeting of the Berlin Medical Society, held February 21st, PROF. EWALD demonstrated some temperature curves, which proved the antipyretic action of kairin, as claimed by Filehne. In the case of a phthisical patient with chronic gastric disturbance the hourly administration of kairin in seven grain doses reduced the temperature below normal: when the administration of the drug was stopped, the temperature again was elevated above the normal, to be again reduced by the re-administration of the drug. GUTTMANN could also confirm this evidence as to the antipyretic action of kairin in the instance of a case of bilious pneumonia, where a similar result followed the administration of the drug.—*Deutsche Med. Woch.*, February 28, 1883.

THYMOL AS AN ANTIPYRETIC.—FIORI has made investigations on the action of thymol on the circulation of febrile and non-febrile patients with diseased or sound hearts (*Centralblatt f. klin. Med.*, No. 2). The points that received attention were the temperature, the pulse, the blood-pressure, and the respiration. Three to four gramme doses lowered the temperature and the frequency of pulse and respiration, without exercising any injurious action on the contractile power of the heart. The arterial blood-pressure, as measured by Basch's apparatus, was found to be invariably raised.—*Med. Times and Gaz.*, March 3, 1883.

AZOOSPERMIA IN HEALTH AND DISEASE.—A. BUSCH has examined the condition of the spermatozoa, in different ages, in the testicles, epididymis and the vasa deferentia, with the following results:

	Spermatozoa.			
	None.	Few.	Many.	Total.
Cases of sudden Death,	—	3	4	7
Acute Diseases,	2	3	9	14
Pulmonary Phthisis,	14	20	8	42
Chronic Diseases,	11	13	13	37
Total,	27	39	34	100

As causes of the absence of spermatozoa, Busch mentions faulty development of the testicles, local causes, general causes, and senile atrophy. The average weight of the testicle and epididymis is 14.3 grammes, while its relation to the general body weight is as 1: 1755.—*Central. f. d. Med. Wissen.*, February 24, 1883.

OPERATION FOR UMBILICAL HERNIA.—DR. DEJEAN, communicates an interesting case to the *Bulletin de Thérapeutique*, in which he performed an operation for an umbilical hernia, as large as a fist, which occurred in the person of a woman twenty-two years of age. Signs of strangulation had manifested themselves during five days, when the operation was performed, under Listerian precautions "as far as possible." The hernia, as usual in such cases, was found to consist of omentum and intestine, the former placed in front. The reduction of the intestine was accomplished, as recommended by Richer, by dilatation of the ring instead of by its incision, and the portion of the omentum which obstructed the reduction was removed. The wound healed readily; and on the twelfth day the patient was able to leave her bed.—*Med. Times and Gaz.*, March 3, 1883.

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TWO CASES OF PERFORATION OF THE ŒSOPHAGUS.—KLAAR reports the following cases:

1. A woman, aged 32, swallowed a piece of bone, and an attempt was made to push it down into the stomach. Severe pain in left half of the chest resulted, and death occurred in a few days with symptoms of pneumothorax. The autopsy revealed a perforation of the œsophagus, with consecutive pleurisy and pneumothorax.

2. A man, aged 41, swallowed a small piece of wood which was enclosed in a sausage; the fragment remained in the œsophagus, and in fourteen days death resulted from severe hemorrhage from the mouth and anus. The autopsy showed that the splinter of wood had been arrested in the œsophagus at the level of the bifurcation of the trachea, and that one end had perforated the aorta.—*Centralb. f. d. Med. Wissen.*, February 24, 1883.

NEPHRECTOMY IN ITALY.—DR. SPADARO reports (*Gazetta degli Ospitali*, February 18, 1883) that five operations for removal of the kidney have been performed in Italy: the first by Urbinati, of Cesena, the second by Raffa, of Rovigo, the third by Clementi, of Catania, the fourth by Novaro, of Turin, and the fifth by D'Antona, of Naples, the last three being successful. Prof. D'Antona's operation was performed December 20th, on a married lady, aged twenty-six, by a curvilinear incision in the left loin. Pus was found around the kidney, which was changed into a bag containing matter. The artery and vein were secured in one ligature, the ureter in another, while a third ligature on the proximal side of the others included all those structures. Perchloride of iron was applied to the stump, and iodoform sprinkled into the wound, which, on the suggestion of Prof. Palasciamo, was not sutured. According to the last report (twenty-fifth day after operation), the wound was granulating rapidly, and the patient progressing to complete recovery.—*Lancet*, March 10, 1883.

DILATATIONS OF THE ABDOMINAL VEINS.—At a recent meeting of the Medical Society of Bonn, DR. LEO presented a man with immense enlargement of the veins of the abdominal walls, which had developed in the course of a few months. The enlargement commenced in the right groin and extended in two snake-like coils to the border of the ribs; on the left side, and in the middle line of the abdomen there was also a single strand of similarly enlarged veins. The affection suggested the well-known *caput Medusae*, although it did not surround the umbilicus; although the etiology is obscure, it is probable that the condition is caused by compression of the portal vein, though the liver is normal in size.—*Berliner klin. Woch.*, March 5, 1883.

ANEURISM OF THE ORBIT TREATED BY LIGATURE OF THE CAROTID.—In the *Vratch*, 1882, No. 13, there is a very interesting clinical lecture by Professor N. V. Sklifosovsky, of Moscow, on a case of idiopathic aneurism of the right orbit in a male non-syphilitic patient, aged 45, of moderately alcoholic habits, with chronic arteritis. All symptoms of the aneurism, viz., pulsating exophthalmos, œdema of the lids, dimness of vision, headache and earache, noise in the head, had been developed quite suddenly, no history of injury having been obtained. On examination of the patient about six weeks later, there were found, in addition to the above symptoms, total loss of vision, insensibility and opacity of the cornea, dilatation and immobility of the pupil, anæsthesia of the lids and right half of the forehead, complete immobility of the eyeball, pulsation on pressure of the latter, blowing noise (like that of a pair of slowly working bellows) heard over the right eyeball and the corresponding temporal, parietal, and occipital regions, and disappearance of the subjective noises on compression of the right carotid at the level of the cricoid cartilage. The author diagnosed rupture of the atheromatous right internal carotid within the cavernous sinus, under the influence of some accidental increase of arterial tension. After the failure of seven days' treatment by compression of the carotid (ten minutes every hour), and low diet, the artery was tied at the level of the cricoid cartilage. Four weeks later the state of the patient was found satisfactory; the opacity of the cornea, the œdema of the lids, and the exophthalmos had disappeared almost completely; the eyeball became movable (abduction, however, was paretic); cutaneous sensibility was restored, and headache had ceased. The loss of vision, however, remained as entire as before the operation. Within five days after the ligature, there began to be developed a cataract of the right lens.—*London Medical Record*, March 15, 1883.

DRAINAGE OF THE ENTIRE MEDULLARY CAVITY.—BLECKWENN reports a case of chronic, diffuse osteomyelitis of the humerus in which resection of the head of the bone was performed, and drainage of its shaft accomplished by trephining the lower diaphysis and removal of the medulla. Recovery, with a useful arm resulted.—*Centralb. f. d. Med. Wissen.*, February 24, 1883.

TREATMENT OF HYDROCELE.—DR. MELILLO, of Rio de Janeiro, recommends (*Il Morgagni*, December) as an improved method of treating hydrocele the employment of a small syringe capable of holding ten grammes, graduated into ten equal parts, each capable of holding a gramme of a mixture of equal parts of chromic acid and water. After the puncture with the trocar has been made, and the liquid begins to flow out, the point of the syringe is immediately substituted for the trocar, before any more of the liquid escapes, and two grammes of the dilute chromic acid are slowly injected for every eight grammes calculated to exist in the tunica vaginalis. After five minutes the syringe is withdrawn, and nearly all the liquid allowed to escape, after which the canula is withdrawn. Any other irritant may be substituted for the chromic acid, and any sized syringe may be used; the object being only the securing the liquid of the hydrocele as a menstruum for the irritating substance employed.—*Med. Times and Gaz.*, March 3, 1883.

AUSCULTATION OF THE RESPIRATORY MURMUR IN THE ABDOMEN AS A MEANS OF DIAGNOSIS.—PROF. CANTANI claims that auscultation of the respiratory murmur over the abdomen will enable the separation of intestinal meteorism from pneumo-peritoneum. In the latter condition the respiratory murmur can be heard over the entire abdomen, while in the former it does not extend further than the region of the stomach.—*Centralb. f. d. Med. Wissen.*, February 24, 1883.

GASTRO-ENTEROSTOMY.—DR. FISCHER (*Deutsche Zeit. f. Chirurg.*, Bd. xvii. 5, 6), of Strasburg, describes the case of a woman, aged 31, who, a year before admission to hospital under his care, had been a patient of Professor Freund, who had removed the uterus for fibro-myomatous disease. She had all the symptoms of cancer of the pylorus, and Lücke decided upon attempting resection. The stomach was washed out for twelve consecutive days, and on the twelfth the abdominal cavity was opened, but the pylorus was found intimately adherent to the pancreas and other adjacent structures, so that resection could not be performed. The pylorus, was, therefore, simply laid open and

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united to the abdominal wound, as in an ordinary gastrostomy. The operation was performed without spray, and the aperture in the abdominal wound that was united to the opening in the pylorus was dressed with iodoform and covered with thymol gauze. In thirty-seven days the patient was discharged. Since her dismissal from hospital she has been able to take light nourishing food, and remains free from any tendency to vomit.—*London Medical Record*, March 15, 1883.

THE VIRUS OF CHARBON.—At a recent meeting of the Société de Biologie, M. FRANCK read a note by MM. ARLOING, CORNEVIN, and THOMAS relative to the different modifications produced in the virus of charbon by various physical and chemical agents. The resistance of dried virus is very much greater than that of fresh virus, and its virulence in different cultures is not invariably associated with mobility of the bacteria; since, although the bacteria remain active, a solution to which eucalyptus has been added, becomes perfectly inoffensive. Putrefaction and cold are without effect on the microbes. On the other hand, a temperature of 80°, maintained for two hours, or of 100° for twenty minutes, destroys all signs of activity. The difference between dried and fresh virus is well seen in their behavior to different so-called antiseptics. Thus dried virus at 32°, even when containing spores, is uninfluenced by such liquids as camphorated or carbolated alcohol, oxygenated water, quicklime, borate of sodium, gaseous sulphurous acid, and the vapor of chloroform, The most active agents are corrosive sublimate, nitrate of silver, and carbolic acid; these destroy both fresh and dried virus, as is also the case with permanganate of potassium, chloral, and eucalyptus.—*Le Progrès Méd.*, February 24, 1883.

A RAPID TREATMENT OF ERYSIPELAS.—MR. RICHARD BARWELL reports five cases of erysipelas which he thinks are sufficient to show that a very great effect is produced upon erysipelas and its congeners by covering the surface with white lead paint. This effect is, he believes, entirely due to exclusion of air; the lead of that compound is in an insoluble condition; nor does he believe that the inflamed skin is in a state to absorb any material applied on its surface; by the time that it has recovered the lead is separated from the living tissue by a tolerably thick layer of desquamated and dead epidermis. Moreover, lead as a solution of the acetate has been applied from a very early period, and, as far as he knows, without any appreciable benefit to erysipelas.—*Lancet*, March 10, 1883.

THE NATURE OF SOFT CHANCRES.—DR. MORITZ WINTER believes that the so-called soft chancre originates from a modification of the syphilitic virus, but is then a separate disease, and can never serve as a source of pure syphilitic contagion. — *Medicinisch-Chirurg. Centralb.*, February 16, 1883.

EXTRA-PERITONEAL NEPHRECTOMY.—BRICHETTI, as the result of his studies and experiments, arrived at the following conclusions (*Gazz. degli Ospitali*, Sept. 3, 1882). 1. The system does not suffer from the sudden removal of one of the kidneys. 2. Nephrectomy (in dogs) has no great danger as an operative proceeding. 3. It is better to abandon the pedicle, previously applying two distinct ligatures with catgut, then to close the wound with the twisted suture, using long and strong pins. 4. The urine undergoes no alteration, chemically or microscopically. 5. Hypertrophy of the heart, which is especially found in atrophy of one kidney (Traube) is never met with. 6. The remaining kidney does not increase in weight or volume, but undergoes a fatty degeneration of the canaliculi, with slight enlargement of the epithelium, noticeable three months after the operation, more evident after six months, and reaching the maximum after the twelfth month. Professors Tizoni and Pieuriti found in rabbits after nephrectomy an increase in weight and volume of the remaining kidney, and a reproduction of glomeruli and tubuli. This the author has not been able to confirm, though he thinks there might be an increase of glomeruli.—*London Medical Record*, March 15, 1883.

SPONTANEOUS RUPTURE OF THE GALL-BLADDER.—SAHLIN (*Hygiea*, 1882) relates the following case: Patient thirty-two years of age; mother of four children; has for years had a chronic catarrh of stomach, and complained of pain in right hypochondrium from time to time; she has never had biliary colic. One night, when six months advanced in pregnancy, she was seized with a sudden and violent pain in the abdomen. During the following days the abdomen enlarged and there was extreme tenderness in the right iliac fossa. On the twelfth day miscarriage occurred, and three days later she died without any appearance of jaundice. At the autopsy a large amount of bile was found in the peritoneal cavity; the gall-bladder contained five large calculi, and had ruptured through the anterior wall.—*Weekly Med. Rev.*, March 10, 1883.

ON A DIRECT COMMUNICATION BETWEEN THE PORTAL VEIN AND THE INFERIOR VENA CAVA.—M. CH. LABOURIN claims to have detected in man a direct communication, other than the capillaries, between the vena cava inferior and the portal vein.

THE TREATMENT OF EPILEPSY.—DR. PAUL BRICON (*Thèse de Paris*, 1882) has made a series of experiments at Bicêtre regarding the effect of certain therapeutic measures in the treatment of epilepsy. These measures were hydrotherapy, arsenic compounds, magnetism, and pilocarpine.

Among fifty-four epileptic patients to whom hydrotherapy was applied, ten were decidedly improved, seventeen slightly improved, the rest were not affected. Among seventeen of those improved, there was no other treatment.

The bromide of arsenic was used in ten centigramme doses, but with very poor result. Ten patients were treated with it, and only one was improved by it alone.

Daily applications of very large magnets were made upon sixteen patients. The applications were continued for from three to six months. No physiological or therapeutical effects were produced.

The nitrate and hydrochlorate of pilocarpine were tried, in .005 to .05 doses, upon fourteen patients. Seven were improved. Dr. Bricon thinks that only hydrotherapy and the salts of pilocarpine gave sufficiently good results to justify further trial.—*Journal of Nervous and Mental Disease*, January, 1883.

THE PREVENTION OF LACERATION OF THE FEMALE PERINEUM.—MR. ALEXANDER DUKE makes use of the following procedure to prevent rupture of the perineum in labor. When he finds the head fairly engaged in the pelvis, and advancing with each pain, he takes his seat by the patient's bedside, and having lubricated his left thumb, or the first two fingers of his right hand, he introduces either into the vagina, and at the onset of a pain, draws back the perineum firmly, but gently, towards the coccyx, relaxing the tension gradually as the pain lessens till the next ensues, and so on till he can draw back the perineum with very slight effort. He thus tires out the muscular structure, and produces sufficient relaxation for the head to pass.

In most cases so treated there is no danger to the

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perineum, but when the pubic arch is narrow (which can be easily determined) he takes the additional precaution of raising the patient's left hip, and supporting it on a hard pillow, while the shoulders are kept low, fomenting the parts, using inunction of lard or vaselin, and taking particular care to direct the head forward by pressure, with his left hand below the coccyx, or a finger in the rectum, leaving the perineum untouched. It has always seemed anomalous to him that the perineum should be expected to dilate on such short notice, namely, "the process of extension," while dilatation of the os and cervix occupy such a considerable time, even with the additional help of nature's hydrostatic dilator, viz., the bag of waters.

The drawing back of the perineum produces no additional pain to the patient, as it is done during a uterine contraction; and he feels sure that, if nurses and students were educated as to the proper way of preparing the perineum previously to its distention with the presenting part, we should see and hear less of lacerated perineum.—*Brit. Medical Journal*, March 10, 1883.

THE EMPLOYMENT OF CHLOROFORM-WATER IN GASTRIC IRRITATION.—It is well known that washing out the stomach with alcoholic liquid is not without advantage in certain chronic affections of that organ, such as cancer, catarrh, and dilatation. DR. BIANCHI (*Lo Sperimentale*, November, 1882) employs chloroform-water in such cases with a view of preventing fermentation. In three cases, of cancer of the stomach, chronic catarrh with dilatation, and chronic gastritis, he introduced daily into the stomach a litre of chloroform-water and allowed it to remain for a minute or two. Instead of irritating still further the mucous membrane, as might be expected, the chloroform-water stimulated the secretion of gastric juice, and was without any toxic properties.—*Gaz. Hebdomadaire*, March 2, 1883.

THE TREATMENT OF SYPHILIS, BY INDIANS.—DR. J. MARION SIMS gives the following as the ingredients of a decoction used with great success by the Creek Indians in treating syphilis:

"Fluid extract of *Smilax sarsaparilla*, fluid extract of *Stillingia sylvatica* (queen's delight), fluid extract of *Lappa minor* (burdock), fluid extract of *Phytolacca decandra* (poke root), āā ʒij; tincture of *Xanthoxylum carolinianum* (prickly ash), ʒj. Take a teaspoonful in water three times a day before meals, and gradually increase to tablespoonful doses.

"In making the fluid extracts, there is some risk of getting a remedy less efficient than the original Indian decoction, because the manufacturer may use roots that have been kept too long, and lost some of their active principles, while the decoction used on the plantations was always made of fresh roots just gathered from the woods. In making the fluid extracts, we should therefore be careful to have them made from roots recently gathered."—*British Medical Journal*, March 10, 1883.

HYSTERO-EPILEPSY IN MAN.—M. PARISOT has under treatm ent in the Hospital Saint-Charles, at Nancy, a young man, eighteen years of age, who is subject to convulsive crises ten times daily, each lasting about one hour. When the attack commences it is announced by pains in the neck and epigastrium, followed by falling and loss of consciousness. The first period is characterized by distortion of the face, convulsive movement of the eyes, and then general convulsions; passionate attitudes terminate the attack, during which there is no incontinence of urine, and the tongue is not bitten. M. Parisot discards the hypotheses of abscess of the brain, epilepsy, or tetanus, as explanations of the convulsions, and thinks that the condition most resembles what is termed hystero-epilepsy in the female. —*Journ. de Méd. de Paris*, February 24, 1883.

SUCCESSFUL GASTROSTOMY FOR COMPLETE STRICTURE OF THE ŒSOPHAGUS.—DR. A. VENER describes in detail (*Mediz. Obozr.*, March, 1882) the case of a man, aged 49, who was suffering from a cancerous obstruction of the œsophagus, the first symptoms of which had been observed about eighteen months before the operation. The patient was extremely emaciated, weighed 105 pounds, was not able to swallow solids, nor, of late, even fluids. The stricture was situated at the distance of 30 centimetres from the incisors. Gastrostomy, to which the sufferer readily consented, was performed by Dr. Knie, after the plan of Fenger and Howse, under the strictest antiseptic precautions (but without spray). The patient bore the operation excellently. The highest temperature (100.6°) was observed on the second day, after the first stage of the gastrostomy. On the seventh day the salicylic dressing was removed, and on the eighth the stomach was opened and a drainage-tube (provided with an Escher's obturator) introduced. On the nineteenth day the patient got up, and on the fortieth left the hospital, feeling quite comfortable and having considerably gained in weight. Drs. Vener and Knie emphatically insist on the necessity of performing gastrostomy in cases of cancerous stricture at as early a period as possible, before the patient's strength has been exhausted and the œsophagus has become absolutely impassable. [This is only the second successful case of establishing a gastric fistula known in the Russian literature. In the first (non-cancerous) the operation was performed by Dr. A. S. Satzenko, of Kieff. All the other Russian cases of gastrostomy (Professor Sklifosovsky's two, Drs. Snegireff, Anders, G. F. Tiling, Stukovenkoff, Kitaevsky) were followed by death within a few days after the operation. The longest survival (nineteen days) presents the second case of Professor Sklifosovsky (*Vratch*, 1880, No. 21, pp. 341–2). Save Dr. Anders' case, in which fatal peritonitis developed (*Peters. Med. Wochensch.*, 1881, No. 21), all the patients died from exhaustion.]—*London Medical Record*, March 15, 1883.

SYPHILITIC DISEASE OF THE RETINAL ARTERIES.—HIRSCHBERG (*Centralb. f. prakt. Augenheilk.*, Nov. 1882) reports the case of a man, aged 39, who had two years earlier suffered from a venereal sore and an inguinal bubo, presented the following symptoms and appearances in his left eye: $V=\frac{15'}{XXX}$; field normal; slight haze of the disk, and enlargement of the veins; an opacity in the vitreous about one millimetre in front of the papilla, like a delicate veil with a dozen reddish-brown dots scattered over it. Besides this, denser membranous opacities in the vitreous and a small hemorrhage over a cilio-retinal vessel, which took the place of the arteria temporalis inferior. Some three weeks later there were observable, in addition to opacities in the vitreous, well-marked white peri-vascular streaks surrounding the arteria nasalis inferior, from which delicate white lines passed perpendicularly into the retina on either side. More peripherally the affected artery plunged into a system of bluish spots, chiefly lying in the retina, but partly projecting into the vitreous, and it terminated in a branched arrangement of red lines covered with retinal hemorrhages. After treatment—mercurial inunction, etc.—the blood became absorbed, but the other appearances remained unaltered. The importance of this observation is somewhat lessened by the absence of demonstration of the presence of syphilis.—*Ophthal. Rev.*, March, 1883.

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SATURDAY, MARCH 31, 1883.

THE BACILLUS TUBERCULOSIS IN DIAGNOSIS AND PROGNOSIS.

THE latest observations on the tubercle bacillus being based on the acknowledged essential relation between it and tubercular disease, have had for their object the determination of its clinical and diagnostic value.

Thus PFEIFFER, of Wiesbaden (*Berliner klin. Wochenschr.*, January 15, 1883), in the recent study of a series of cases, divided them into four grades of severity, and from a quantity representing four or five drachms of sputum he made daily four preparations from each case, and when these happened to contain no bacilli he made a second set of four. He further indicated the number of bacilli in each preparation as, numerous, sparse, and absent. His results were as follows:

In the first or mildest grade the bacilli were numerous 4 times, sparse 14 times, absent 7 times; in the second, numerous 11 times, sparse 10 times, absent 4 times; in the third, numerous 13 times, sparse 10 times, absent 2 times; in the fourth or most serious grade, numerous 16 times, sparse 6 times, absent 3 times.

From this it will be seen that the number of bacilli in the sputum increased with the severity of the disease. The fourth case died a few days after the termination of the observation; the bacilli in his sputum were always "numerous." Only in one case, the mildest, were bacilli absent for three successive days, none being found in twenty-four consecutive preparations.

DR. FRANZ ZIEHL (*Deutsche Medicinische Wochenschrift*, January 31, 1883) found tubercle bacilli in the sputum of 72 out of 73 cases in which the physical signs of phthisis were present; even in such cases in which the local objective condition is wanting can the diagnosis be sometimes confirmed; in one of this kind the method failed, where there could be no doubt as to the diagnosis, while in a couple of cases this demonstration turned the scale in the diagnosis.

On the other hand, in none of 34 non-tuberculous affections of the respiratory apparatus (including croupous pneumonia, acute bronchitis, chronic bronchitis, with and without emphysema, gangrene of the lungs, and putrid bronchitis), were the bacilli present, although many preparations were made from each case.

While Ziehl considers that, according to his methods of staining, amplification, and illumination, he finds the tubercle bacilli in sputum more frequently than others, he still admits that there may be cases in which this new aid to the diagnosis of tuberculosis may lead to error or fail of its purpose. Thus in cases of true tuberculosis the sputum investigated may be derived from the nasal passages or the mouth, and thus be naturally devoid of bacilli, while it still occasionally happens that there may be cases of undoubted tuberculosis in which the bacilli are absent from the sputum. In one case, for example, a patient in whose sputum even elastic tissue of the lung was found, and who died with the signs of a cavity five months after he came under observation, bacilli were never found; while in incipient phthisis, too, the quantity of expectoration is sometimes so trifling that it is difficult to obtain a true pulmonary sputum.

Ziehl cannot, therefore, on this account agree with Balmer and Fräntzel who say that, in cases of lung disease, where, notwithstanding repeated and careful observations, no tubercle bacilli can be demonstrated in the expectorations, tuberculosis cannot exist; nor in their assertion that in all cases of rapid phthisis the bacilli are abundant in the expectoration. Lichtheim and d'Espine confirm Ziehl in this respect.

On the other hand, we dare not infer from the presence of tubercle bacilli in sputum that tuberculosis necessarily exists. Since we must admit the curability of phthisis in rare instances, we must admit the possibility of elimination of the tubercle bacillus. Hence, it is not impossible that tubercle bacilli may enter the respiratory passages by inhalation and be removed by expectoration. And, although, no instances of this kind have as yet been noted, it does not do to admit the second proposition of Balmer and Fräntzel, that where tubercle bacilli are present in sputum, we must have to do with tuberculosis of the lungs. Contrary, also, to Balmer and Fräntzel, as well as Pfeiffer, we dare

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not attribute to the number or stage of development of bacilli any weight in prognosis beyond that the bacilli are very often, though not always, abundant where cavities are present. So, too, the bacilli in the bronchi and cavities of phthisical patients can have nothing to do with tubercular processes in other parts of the body.

DR. THEODORE WILLIAMS, of London (*The Lancet*, February 24th), examined the sputum in 130 cases of lung disease. Out of 109 phthisical cases he detected the bacilli in 106, and in 21 cases other than phthisical, he did not find the bacillus in one. DR. HERON found the bacillus in 54 cases, in some of which the *physical signs were so slight that he would have hesitated to make the diagnosis without the aid of the bacillus.*

If such observations as these are correct, and there is a remarkable unanimity in the results, the bacillus tuberculosis is no longer a pathological curiosity, but it behooves every practitioner to examine the sputum from cases of lung disease which are of any duration. How many of us have been consulted in cases in which, without any suspicion whatever that the sickness was to be of more than a few days' duration, and have seen it drift into phthisis, or have, perhaps, been informed by a sudden copious hemorrhage that we have something more to deal with than a simple bronchitis.

THE BACILLUS TUBERCULOSIS AND THE ELASTIC TISSUE OF THE LUNG IN THE DIAGNOSIS OF TUBERCULOSIS.

IT has long been known that one of the most positive aids in the diagnosis of phthisis is the elastic tissue of the lung as found in the sputum by aid of the microscope. In this manner fragments of considerable size derived from the disintegrated air vesicles are discovered with comparative ease—very much more easily and requiring much less manipulative skill than the bacillus tuberculosis as ordinarily sought for. Notwithstanding this fact, it is comparatively rare that sputum is studied, even by hospital physicians, with a view to finding it. It will be a matter of surprise, therefore, to some of our readers to learn that it is found in almost as large a proportion of instances as the bacillus, and is therefore practically as useful in the diagnosis of chronic phthisis. Drs. Dettweiler and Meissen (*Berliner klin. Wochensch.*, Feb. 12) investigated eighty-seven cases of chronic phthisis in different stages. In eighty-five of these clinically diagnosticated cases, or 97.7 per cent., bacilli in larger or smaller numbers were found in the sputum, while in eighty-two, or 93.8 per cent., elastic tissue of the lung was found.

In this connection it is interesting to know that Dr. Formad, of Philadelphia, has discovered that Fenwick's process of preparing sputum for examination for elastic tissue (boiling with liquor potassæ, setting aside to cool, and examining the sediment) serves also to prepare it for examination for bacilli, and in this manner both objects may be sought at the same time, and by a single manipulation.

MEDICAL PHILOLOGY.

THE state of medical terminology and pronunciation is, to say the least, most unfortunate. As in the days when there was no king in Israel, when every man did that which was right in his own eyes, so is it now. The student who has received a classical education has a sufficiently hard time of it, but woe be to him to whom Latin is a novelty and Greek an enigma. The English method of pronouncing Latin, which gives us "vāgina" with its long *i* as in light, is followed by not a few, and even adherents of the Continental method (save the late dear old Charles D. Meigs) hardly dare to pronounce it with the *ee* sound. "Major" is almost always sounded with the *a* as in hate, even when combined with "pectoralis" with its *a* as in far, thus commingling the two systems. And now, still further to confuse us, comes the Roman method, with its hard *c*, and its "hydrocephalus" in medicine, and its "keramic" in art.

Still worse, quantity seems to be often wholly forgotten. The followers of all three systems shorten the penultimate of "umbilicus" instead of making it long, and tranform "parĕsis" into "parēsis," and "tinnĭtus" into "tinnītus." Not without reason, then, does Virchow enter a protest, in a late number of his *Archiv*, against the "Barbarisms of Medical Language."

As systems of pronunciation are blended, it is no wonder that even the two ancient tongues themselves are joined in unseemly wedlock. We know one of our best medical authors who has repeatedly written "subdermal," which is no less a monster of language than "hyperextension" and its similars, to which our Berlin linguist objects. Celsus and other Roman authors, though they adopted many Greek terminations from their Grecian masters in our science, and thus unfortunately led the way to such anomalies, always printed the Greek terminations with Greek letters to denote their foreign origin.

Not only have genders suffered strange transformations, but the very forms of words have undergone extraordinary changes. The old Greek "kynanche" and its later "synanche," through the Latin and Italian, became "squinantia," and in English quinsy, as in German Propst (English provost) is derived from præpositus and Pferd from paraverēdus. This same tendency to abbreviation is giving us "ary-" instead of "aryteno-epiglottidean," and other equally bad, though handy, terms.

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Nearly every page of our medical journals presents us with the illegitimate "diagnose" for "diagnosticate," and in adjectives a similar forgetfulness of the proper root form is giving us many unjustifiable terms. "Hypodermic" is almost an established word, although the proper form is "hypodermatic;" and "tabetic" is derived from an impossible "tabeticus," in spite of the fact that the genitive of tabes is tabis, and its adjective "tabidus."

So, too, the Greek termination "ides" is made to assume a Latin form, "ideus," and its corresponding feminine as in "mastoideus," both in describing the process which is, and its muscle which is not, "teat-like;" or in "arachnoidea," to denote the membrane which is, and its vessels which are not, "like a spider's web."

An international science like medicine, deriving most of its technical terms chiefly from two ancient languages, and adding to them by the coinage of new terms by authors who write in all the modern tongues, and who are often sadly deficient in classical culture, is necessarily at the mercy of ignorance and carelessness. We bespeak, therefore, from our teachers, and especially our educated authors, more care and exactness in the use of language. He who mispronounces a word is guilty of philological murder, and he who joins Latin and Greek is the author of a linguistic miscegenation.

We trust eventually to see a science of literary orthopædy arise in medicine, the province of which shall be to correct the deformities of speech, deformities which are as obnoxious to the ear of the scholar as is a clubfoot or a knock-knee to the eye of the surgeon.

CHEMICAL TREATMENT OF SEWAGE—THE PETRI SYSTEM.

FOR over two years this system has been in use experimentally at the Plotzensee prison near Berlin, which aggregates a population of about two thousand persons. Filtration through turf, gravel, and sand, with precipitation by lime, sedimentation, and subsequent filtration, form the steps of the new process. The turf acts, of course, mechanically, but it is claimed that it also exercises a chemical action, causing the destruction of dissolved organic matters, the retention of ammonia, and the preservation, by an antiseptic property, of substances prone to decomposition which may have been retained by it. The sand and gravel are simply filtering agents. The lime precipitates much of the organic matter, such as the acids which take their origin in the fermentation of the sewage, and especially combines with the carbonic acid present, carrying down in a sedimenting basin during its precipitation all the mechanically suspended matters of the sewage. The turf is understood to last a long time without deteriorating in its chemical qualities, or choking in its pores.

The city government of Berlin has recently instituted an investigation into the working of this system with the view of applying it to the general sewage outlets of the city. The sewage has been examined by chemical means before and after its purification—and the effluent liquor has been compared with certain river and well waters, and with the effluents of certain farms where sewage irrigation is carried on, the results being understood to be extremely favorable to the new process.

The purified sewage is considered qualified for admission into any water-course in the country, provided the process is carried on under judicious and watchful supervision. In addition to the chemical proof of the quality of the purified sewage liquid, it was shown capable of sustaining vegetable and animal life notwithstanding the chemical treatment, by lime, which it had undergone. Certain chlorophyleaceous algæ flourished in it and fishes thrived. The value of the sludge as a manure is also adverted to, as is usual in the history of a new chemical process for the purification of sewage, the said sludge containing so much nitrogen and so much phosphorus.

But so many chemical methods have been introduced, with reports showing their ability to deal satisfactorily with the two difficult questions, the disposition of sewage and the pollution of rivers, and have failed when applied on the large scale, that we must hesitate before accepting the Petri process as presented by their chemist to the city authorities of Berlin.

SYSTEMATIC POST-MORTEMS.

IT is a matter of no little surprise, when we once have our attention directed to the subject, that so many valuable, and in many cases indispensable, data are entirely omitted from even the best of our reports of autopsies. Who of us give the weight and volume of the various vicera, the length of the large or the small intestine, or the circumference of the principal arteries?

Following the lead of the anthropologists, and especially in this country of Dr. Bowditch and the Massachusetts Medico-Legal Society, the Surgeon-General, U. S. A., has issued a circular of instructions, directing that these facts and figures shall be included in army reports of autopsies, besides the ordinary facts of the medical histories. It is a step in the right direction, *i. e.*, the substitution of precision for a guess; and when a sufficient number of facts are gathered, we can establish a norm as to all these organs. Sufficiently detailed instructions are given as to the precautions to be adopted and the methods of making the observations.

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The government services are so favorable to all such exact scientific observations, that we should be very glad if the Medical Corps of the Navy and that of the Marine-Hospital Service would adopt a similar form. True, so full a record requires time and trouble, but what is worth having that does not?

DIVORCE.

IN the *North American Review* for April, 1883, Judge Jameson closes an article full of startling disclosures, with some excellent suggestions. The increase in the number of divorces in this country, and especially in New England, is one of the most serious of the social problems affecting the population. In Massachusetts, in 1878, there was one divorce to every 21.4 marriages; in Vermont, one to 14; in the Western reserve, one to 11.8; and in one of its counties, one to 7.4.

Judge Jameson points out that the law, thus far, has only considered the interests of the husband and the wife, and has neglected to make any provision for the representation of the other two and very deeply interested parties, viz., the children and the State. He proposes that a guardian *ad litem* be appointed for the children, who should be heard in their interest, and be paid by the complainant; and that the State should be represented by its attorney. In addition, he advocates a Federal statute on the whole subject of marriage and divorce to make it uniform all over the country. Coming from one who is evidently of very "liberal" views on the subject, these opinions carry all the more weight, and should receive earnest consideration.

THE NEW YORK COUNTY MEDICAL SOCIETY AND THE NEW CODE.

A LARGE and spirited meeting of the Medical Society of the County of New York was held last Tuesday evening, to elect three delegates to the State Medical Society, to fill the vacancies created by the resignations of Drs. Webster, Johnson, and Foster, who had been elected permanent members. The meeting was crowded with members who were present to give expression, through the election, to their views on the New Code.

Dr. Austin Flint, Jr., nominated Drs. Charles Hitchcock, C. S. Ward, and C. A. Leale, to fill the vacancies created by the resignations; and stated that these gentlemen were earnest advocates of the Old Code, and in the State Society would vote for its restoration. Dr. D. B. St. John Roosa nominated Drs. Walter R. Gillette, P. Albert Morrow, and F. M. Weld, who were announced to be supporters of the New Code. The ballot resulted in 94 votes for the Old Code ticket, nominated by Dr. Austin Flint, Jr., against 71 for the New Code supporters, nominated by Dr. D. B. St. John Roosa.

This important action in the home of the New Code is significant, and indicates that the profession is aroused to the importance of the issues involved. By the election of these three gentlemen, the delegation of the New York County Society no longer remains solid, and we trust that the influence of an aroused professional sentiment may make itself felt still further in this matter.

MYOSURIC URINE.

UNDER the above title M. Denancey describes a kind of urine which must have attracted the attention of those of our readers accustomed to make urinary examinations.

The following are the physical characteristics of such urine: It has a strongly reddish-yellow color; has a specific gravity which oscillates between 1025 and 1029; does not contain any sugar; is but slightly acid; blackens silver vessels in which it is boiled, and is colored brownish by the cupro-potassic test. He finds, further, that it has the property of decolorizing iodide of starch, which is due to the unoxidized sulphur in the large quantity of extractive contained in it. M. Denancey thinks that this condition of the urine is a pathological state related to diabetes, and he therefore proposes to name it *myosuric diabetes*.

PART III. of the surgical volume of the *Medical and Surgical History of the War of the Rebellion* has just been issued from the Surgeon-General's Office. It is a portly volume of one thousand quarto pages, and completes the surgical portion of the history. The work on this volume, which was interrupted by the untimely death of the late Surgeon George A. Otis, has been ably carried on to completion by Surgeon D. L. Huntington, and it covers the following subjects: The treatment of regional injuries of gunshot origin, and those of the lower extremities; miscellaneous injuries, not strictly gunshot in character, but incident to the military status; wounds and complications, including the nature, peculiarities, and effects of missiles and projectiles, and conditions affecting the course and result of wounds, with especial reference to the graver complications of secondary hemorrhage, erysipelas, pyæmia, gangrene, and tetanus; anæsthetics, and a brief historical sketch of the medical staff, and a description of the materia chirurgica, and of the methods of field, railway, and water transportation of the wounded. The volume is profusely illustrated, and sustains the high reputation which is enjoyed by its predecessors of the series. Of the work in detail, we shall have more to say hereafter.

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OUR readers will learn with deep regret of the death of Dr. William H. Van Buren, which sad event occurred last Sunday morning. Dr. Van Buren was an eminent surgeon, and a distinguished citizen, and his death is a profound loss to the profession of which he was a most esteemed member. Of his life and labors, a brief sketch will be found in another column.

REVIEWS.

COLOR-BLINDNESS: ITS DANGERS AND ITS DETECTION. By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon to the Massachusetts Charitable Eye and Ear Infirmary, Carney Hospital and New England Hospital for Women and Children, etc. etc. Revised and enlarged edition. 12mo. pp. 334. Boston: Houghton, Mifflin & Co., 1883.

THIS work was first published in 1880, and the demand now for a second edition shows that it has been well received. It has an established position as a standard text-book on the subject of which it treats; in fact, it is the only one in the English language, and its possession is therefore a necessity to all who wish to be up to the times in this branch of ophthalmic surgery.

The new matter in the present edition comprises the statistics of recent examinations for color-blindness, both in this country and abroad, the law passed by the Massachusetts Legislature in 1881, for the examination of railroad employés, and that which went into force in Sweden in January of the present year. Also the Congressional bill for the appointment of delegates to the proposed international convention to establish regulations for the control of color-blindness on the sea, which has been twice favorably reported by the Naval Committee, to which it was referred, but has not yet been acted upon by the House.

Eighteen pages have also been added to the already voluminous bibliography. Of the type, paper, etc., it is enough to say that it comes from the Riverside Press, and is equal to that of the first edition.

THE COMPEND OF ANATOMY. By JOHN B. ROBERTS, A.M., M.D. Third edition. 12mo. pp. 198. Philadelphia: C. C. Roberts & Co., 1882.

THIS excellent little compend has reached its third edition in less than as many years. Within its sphere, it is one of the most useful books of its class, and each edition has witnessed some slight improvement. We could, however, wish for a few more definite articles, especially in the table of contents, even though the process of compression had necessitated a rather abrupt style.

SOCIETY PROCEEDINGS.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, March 7, 1883.

EDWARD HARSTHORNE, M.D., IN THE CHAIR.

DR. GEORGE HAMILTON read a paper entitled

SEWER GAS, AND ITS ALLEGED CAUSATION OF TYPHOID FEVER,

in which he said that, in his country practice, he had nearly always found that the young men who were at work in the fields were more frequently attacked with typhoid fever than the females, who were generally engaged in domestic duties in or about the house; and if, as the sanitarians declare, "there is in the country houses, or the surroundings, something equivalent to sewer gas," why is it that the reverse, as to sex, should not be the case? Diphtheria is also said to be caused in great measure by sewer gas; why is it, then, that the most violent and fatal attacks of this malady occur in the country, sweeping off at times four, five, or six children, in a single family, without a thought of sewer gas; whilst in cities, with sewer gas almost everywhere, the proportionate mortality is much less. Notwithstanding the testimony of Dr. Alfred Carpenter, of London, to show the causation of scarlatina by this agent, here again such testimony is confronted by facts similar to those adduced in regard to diphtheria. It is only a few months since scarlet fever appeared in a town in Pennsylvania, noted for its cleanliness, and occasioned a proportionate degree of mortality unknown in Philadelphia.

It is now time to confront the popular opinion, he contended, that typhoid fever, diphtheria, and scarlet fever are caused by sewer gas, and that to a degree unequalled by all other alleged causes combined. In attempting to do this, such cases as the following will be completely ignored. Mr. A., on returning from his summer tour, perceived, distinctly, the smell of sewer gas in his house, and fell sick on the third day with typhoid fever. What can be said against sewer gas in this case, it may be asked. In answer, it may be said that while, by a bare possibility, the gas was the cause of the disease, the probabilities are all the other way. In the first place, the period of incubation is from eight to twelve days; in the second place, his experience has convinced him that in not more than one house out of five has any smell or sign of sewer gas been detected, either before or during an attack of typhoid fever. And again, if the opinion lately advanced by a few of the most eminent authorities that, as at present constructed and placed within the dwelling, the apparatus is incapable of excluding the gas, is correct, then, in such a city as Philadelphia or New York, many thousands more must be added to the tens of thousands of houses said long ago by the alarmists to be infected with sewer gas. In this connection, it may further be stated, that if the dwellings of this city and those of New York are infected to the extent asserted, then the conclusion is inevitable that the mortality would be absolutely frightful, and yet, in some weeks, in our city and in New York, with, taken together, about three millions of people, the deaths have been down to two, three, or four; while diphtheria caused, as sanitarians and experienced physicians say, by the same sewer gas, has at this identical time occasioned weekly, the death of about thirty or forty persons. In the third place, it is well known that many individuals on returning from the country to their homes in the city, in a very few days, before the period of incubation has expired, have had attacks of typhoid fever, and such cases may fairly be regarded as having had their origin in the country.

An important point in the history of typhoid fever, as it occurred in the country, was, that if the disease once appeared in a farm-house, it would, as a rule, attack more than one of the members of the family before leaving it, and this, too, when the physician knew of no other case within a mile or more of the afflicted family. Now this is in entire accord with the admitted contagiousness, under certain conditions, of typhoid fever. The feature just noticed does not, as a rule, occur in the city, for in an immense majority of cases there will be but one member of a family attacked. Now it has been said by a somewhat noted medical statistician, and concurred in by many others, that if a

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case of typhoid fever appears in a family, it proves the existence of gas or filth in immediate relation with the residence. This is certainly explicit; but the question is, how happens it that, with such an efficient cause for the first case, it is only occasionally followed by others in the family? But, again, it may be asked, if sewer gas, for this, after all, appears to be the great "*cheval de battaille*," has not been, and is not yet excluded, by even the best plumbing, from the finest houses in this city or in New York, and, consequently, that tens of thousands of houses in both cities are in this fearfully exposed condition, how comes it that in Philadelphia, with 900,000 inhabitants, the Board of Health has recently reported but two deaths from typhoid fever in one week, and four in another; whilst diphtheria, said to be due to the same agencies, has prevailed at the same time to an alarming extent? The returns of the Board of Health of New York present similar statistics, showing comparatively fewer deaths from typhoid fever than Philadelphia, but a larger proportionate fatality from diphtheria and scarlet fever. That many physicians neglect to carefully examine these reports is well known, and yet they are the only available and reliable sources of information in regard to the character and movement of disease. If, instead of this reprehensible neglect, a diligent and discriminating examination were regularly made, it would do much to prevent misconception and error in regard to the actual causation of disease, a subject admitted by the most experienced and gifted minds to be one of equal difficulty and importance.

In this connection it must be stated that the reports of the Board of Health of Philadelphia show, unmistakably, that in the central portions of the city, where sewers and water-closets are most numerous, there is, as a rule, less typhoid fever and diphtheria than upon the outskirts, adjacent to the country; and this was the fact in regard to bilious remittent fever, before it gave place to typhoid. Neither is it matter of surprise, for, just in proportion as the streets have been extended into the suburbs, graded and paved, houses erected thereon, and sewers constructed to carry off the surface drainage, a diminution of fever, whether intermittent, remittent, or typhoid, has been the beneficial result of such improvements.

COL. WARING, who was present by invitation, was called upon by the Chair to discuss the subject considered in the paper.

He remarked that he desired to say one word for sanitary engineers with regard to the cause of typhoid fever, and this was, that they had long since abandoned the opinion that sewer gas was the cause of the disease. He thought it very important that filth should be gotten out of the way so as not to become a source of contamination to the water-supply. The literature of the subject seems to prove that typhoid fever in the country is due to drinking water which has become contaminated. Cleanliness is safe and important, and efforts should be always made to secure it.

DR. HAMILTON said the quality of the drinking water remained essentially the same from year to year, whether typhoid fever prevailed extensively, or was absent. So, also, in regard to vegetables and roots for family use. These are laid up every season, generally in trenches, covered with clean straw and earthed over. On consulting several German monographs Dr. H. had found the experience of the writers to conform with his own, that males suffered more from typhoid fever than females, and that from the fifteenth to the twenty-first year, the period of rapid growth, the danger, in case of an attack, was augmented.

DR. J. M. KEATING said that the paper just read might mislead some into the supposition that *sewer gas* was considered a cause of typhoid fever. It may be well for us at once to dispel such an idea, and to couple with the paper just heard the emphatic endorsement of this body that *sewer gas*, as far as *typhoid fever* is concerned, is simply a VEHICLE by which the specific germ may enter the system of one prepared to nourish and develop it. There is no need to debate the question as to the greater importance of infected drinking water; the incidents in the paper just heard, the greater prevalence of the disease in the rural districts where privy wells contaminate the drinking water, and the remarkable statistics of the New England country towns where the wells for sewerage and drinking purposes are under one roof, the fact that these localized epidemics are usually traceable to one primary case entering the village, are all sufficient evidence in themselves.

But though *sewer gas* may not always carry the germs of typhoid fever, it has a poison of its own equally terrible in its consequences.

The modern improvements in house-drainage are unfortunately too often the means of carrying the most deadly vapors directly into the abodes of luxury and wealth. At those hours when depressing influences have disarmed their victim, these noxious gases steal insidiously into his chamber, and do such violence as to render fatal by the most serious complications such diseases as are otherwise mild and harmless in themselves. Whether the concentrated miasms from paludial emanations or the outpouring gases from a sewer through *siphoned* traps, the unconscious sleeper breathes poisons as potent in their devitalizing effects as if he inhaled the germs of typhoid fever in their purity or drank water impregnated with the excreta of typhoid cases. *Sewer gas* is not necessarily a *cause* of typhoid fever, except when it carries its germ, but it is the most potent cause of the "typhoid state;" and there is a decided choice between these two evils—in favor of the former.

Early manhood carries with it a decided predisposition to typhoid fever.

The typhoid germ is certainly more deadly if its vehicle be poisonous also; and it becomes our duty to add an earnest appeal to that which seeks by proper legislation to give us pure air for our children to breathe, and pure uncontaminated water to drink.

DR. J. G. RICHARDSON remarked that Dr. H.'s illustrative cases may be very plausibly explained in accordance with the modern views respecting the danger to human health from impure drinking water, foul sewer air, and other grave sanitary errors.

Dr. Hamilton mentioned the case of the mother of a family who contracted typhoid fever away from home, and brought it back to her farm house, where several members of the family seemed to take the disease from her, and argued that this circumstance proved that the infection of typhoid fever was not carried by sewer gas, because in this instance no sewers existed near the place. The true explanation of this seeming anomaly is, he believes, however, that, whilst typhoid fever is sometimes carried by sewer gas, it is more frequently conveyed in drinking water contaminated by sewage, and that in this case the diarrhœal discharges of the mother were emptied near enough to the family well to soak through the ground into it, and, by polluting the drinking fluid, transmit the disease to other members of the household.

That some such mode of propagation may have existed is shown by a remarkable fact related by Prof. Flint, upon whom Dr. Hamilton relies as an authority against the dangers of sewer gas, which is briefly as follows: A young man travelling by stage-coach in Vermont was taken sick, and left at a wayside inn in a small village. His complaint soon proved to be typhoid fever, and in a short time the disease appeared

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in each of the neighboring houses, the inhabitants of which used water from the tavern-keeper's well, *except one*, whose residents had quarrelled with the landlord, and consequently went elsewhere for their water-supply.

In the light of recent sanitary science, then, it appears that many people, many whole families, in rural districts, suffer from typhoid fever because they drink well water polluted by direct mixture with fecal matter containing the specific fever germ, which soaks through the soil, often directly into the well; whilst in cities a few persons, relatively, are attacked with typhoid fever, and many with diphtheria, etc., by inhaling poisoned sewer air from stationary washstands and other modern conveniences. There are probably one hundred thousand village and farm houses in the United States today where the cesspools *feed* the wells in this abominable manner, and such wells surely in their turn *feed* from time to time the churchyards in their neighborhood.

Again, Dr. Hamilton inquired, why is it, if sewer gas is the cause of both typhoid fever and diphtheria, we now have, according to the late reports of the Board of Health, only two or three deaths per week from the former disease, and thirty or forty from the latter? The obvious answer is that sewer gas can only convey the *materies morbi* (the disease germ as I believe it is) with which it is freighted, and, at the present time, sewer air in but few houses is contaminated with typhoid-fever poison, whilst in many it is loaded with diphtheria germs. Precisely as drinking water might contain both lead and copper in varying proportions, and accordingly as one or the other temporarily predominated, would persons who imbibed the fluid be liable to exhibit the symptoms of lead palsy or of copper poisoning.

Although he is not yet prepared to endorse the *dictum* of a late English hygienist, who declares "For every death from typhoid fever, somebody" (meaning some plumber, architect, or sanitary engineer) "ought to be *hung*," he does hope and believe that the time is not far distant when at least the charge of criminal negligence will lie at the door of every physician who, after being warned by the occurrence of one case of typhoid fever, diphtheria, etc., in a dwelling, does not immediately endeavor to guard the other residents of that house against the germs (or poison) of infectious disease, by a diligent search for the sanitary defects in water or milk supply, or in the disposal of sewage, which will almost certainly be discovered.

After having spoken of the germs of typhoid fever, diphtheria, etc., entering sleeping apartments from stationary washstands in spite of traps, he said that in this connection he desired to show, just how, as he conceived, these poisons may penetrate through such mechanical contrivances. He then exhibited the ball of an ordinary Bower trap, covered with a coat of fungous growth, and a portion of the slimy coating from one of the pipes of similar structure. Since these form a continuous lining quite through the trap, it is obvious, he thinks, that it may have crept up from the sewer itself, thus forming on the inner or house side of the trap a new starting-point for the evolution of disease germs, against which of course the most perfect water seal is absolutely no protection. This, he believes, is what really occurs in a multitude of instances, as he pointed out in a paper entitled *Why Sewer Traps are Unreliable* in THE MEDICAL NEWS, Sept. 2, 1882. The true remedy for the dangers of sewer gas poisoning is, therefore, as explained in that article, to be found in sterilizing the whole interior of our traps and waste-pipes with slow currents or drippings of powerful disinfectants, such as the salts of iron, zinc, mercury, or arsenic, "just as the shores of the Dead Sea and the banks of certain small streams are sterilized, by mineral ingredients or poisonous metallic substances from manufacturing refuse, with which their waters are mingled."

THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, March 8, 1883.

THE PRESIDENT, JAMES TYSON, M.D., IN THE CHAIR.

DR. J. T. ESKRIDGE exhibited a

UNIQUE SPECIMEN OF OSSIFICATION AT THE AORTIC ORIFICE,

which was sent him from a distance, and consisted of about one inch of the cardiac end of the thoracic aorta, the aortic semilunar valves, and the immediate portion of the heart. The specimen was removed from a man, aged about seventy, who had suffered a number of years from severe heart-disease. The walls of the large arteries were thickened, rigid, and contained numerous deposits of inorganic matter. The left ventricle was enormously enlarged. He was unable to obtain any information with regard to the condition of the cardiac valves other than those of the aortic orifice.

Description of the specimen—The aorta, where it surrounds the valves, for about half an inch in extent is a hard, unyielding substance of fibrous tissue, and calcified and ossified matter. The valves in several places are about one-fourth of an inch thick, and seem to have been almost entirely transformed into bone-like material. They are rigid and immovable, and have almost completely cut off all communication between the heart and aorta. One of the leaflets, about three-fourths of an inch in all directions with its vegetations, stretches across the aorta, lies against and is apparently adherent to the other segments of the valves, the latter being curled upon themselves. The central portion of the aorta is entirely occluded, and only two small openings through which the blood could have escaped from the left ventricle, are seen between the valvular leaflets near their peripheral attachments. The larger of these holes admits a flattened probe three mm. wide by one thick; the smaller is about two-thirds as large. Three other smaller orifices have existed, but these were obliterated before death by a thin, fibrous, transparent membrane, which is still seen. The valves on the cardiac side are tolerably smooth, but on the aortic side they are very rough, one of the leaflets supporting a vegetation ten mm. long. One of the segments of the valves is adherent to the inner coat of the aorta for about half an inch in extent, the free end of the valve being folded upon itself, and pointing towards the nearly closed aortic orifice. After macerating the specimen in water for forty-eight hours, the diseased valves still remain inflexible.

DRS. FORMAD, DUNN, GRIFFITH, and EDWARDS reported having seen similar, or nearly similar cases.

DRS. TYSON and NANCREDE called in question the correctness of calling the disease *ossification* of the valves, as it was in reality a *calcification*.

DR. SHAKESPEARE concurred in this view, and thought that ossification rarely, if ever, occurred in this situation.

DR. ESKRIDGE said that Hayden (*Diseases of the Heart and Aorta*, vol. ii. p. 839) referred to bony deposits in the aorta and its valves, as follows: Sir Dominic Corrigan exhibited before the Pathological Society of Dublin (see *Proceedings*, vol. ii., new series, February, 1864) the heart of a young woman, in which the root of the aorta had undergone complete osteoid transformation; it was likewise greatly dilated, and the aortic valves had been rendered thereby inadequate. During the patient's last illness, a systolic murmur, of metallic quality, appropriately designated a "trumpet-

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bruit," was audible at the base, and in the ascending aorta and carotid arteries; there was likewise a soft diastolic murmur. He regards a "trumpet-bruit" as absolutely diagnostic of bony deposit in the aorta, either in the form of a "rim of bone," or a "projection or tongue of bone." In the same paragraph Corrigan refers to Dr. Bank's specimen of "a tongue of bone" projecting into the aortic orifice.

DR. NANCREDE exhibited

A TUMOR COMPOSED OF MILIARY TUBERCLES OF THE SUBCUTANEOUS ADIPOSE TISSUE CONNECTED WITH ONE OF THE ANTERIOR CUTANEOUS BRANCHES OF THE LUMBAR NERVES.

The patient from whom this unique tumor was removed was a young girl, eighteen years of age, who for four years past had had occasional coughs, with at times some bloody expectoration; but was able to attend to her occupation of housework; her family history was not characteristic in any way. About one year since, she thought that she "strained herself," since when she has been subject to severe attacks of abdominal pain, which extends to various portions of her body. She was admitted to the female medical wards of the Episcopal Hospital last fall, when dulness on percussion and harsh respiration at the apex of one of the lungs was detected. During December, 1882, the pains increased, and the right thigh became flexed upon the abdomen. A small, exquisitely sensitive, nodulated tumor was now detected just to the outer side of the right rectus abdominis. Dr. Morris J. Lewis, by whose kindness he was enabled to present this specimen, then asked him to see the case with him. Under ether, he found a nodulated mass, beneath but attached to the skin, and freely movable upon the deeper parts. He then thought that the growth was one of the ordinary so-called neuromata, *i. e.*, usually fibrous growths in connection with some nerve, and that the pains were reflex, as was also the flexion of the thigh. February 20, 1883, he accordingly removed the growth, which to his surprise was markedly infiltrated, and only at one spot in any sense encapsulated, where it evidently had developed around a small cutaneous nerve and artery. The wound did badly and has left an indolent ulcer, but *all the reflex pains, and flexion of the thigh have disappeared;* and, while the lung is breaking down, nevertheless the patient is gaining flesh, and looks and expresses herself as much better, and thoroughly satisfied with the results of the operation. Dr. Nancrede termed this growth "unique," because he believes that none such has been reported, *i. e.*, subcutaneous masses of tubercle large enough to require the surgeon's knife, and liable to be mistaken for other neoplasms. The present growth was about an inch in its various diameters, as far as could be estimated. Microscopically, sections show fibrous and adenoid tissue, with giant-cells, according to the kind report of Prof. Simes, whose observations have been confirmed by Dr. Formad, and other pathologists, as well as by himself.

DR. G. G. DAVIS said that he had seen a somewhat similar case in the clinic of Prof. König, of Göttingen. A young man had a subcutaneous tumor just above and to the outer side of the patella. It was about one inch and a quarter in diameter, and perfectly circumscribed. It and a portion of the joint-capsule, including the part to which it was attached, were excised antiseptically. On the synovial membrane were found a number of what appeared to be miliary tubercles. There were no other evidences of tubercular disease, and he recovered with a good, movable joint. Prof. König regarded the case as one of true localized tuberculosis. He examined the excised portion microscopically. The tumor was hard, but had undergone cheesy degeneration.

DR. NANCREDE thought that this interesting case related by Dr. Davis still left his own unique, as Prof. König's case evidently had its origin from the synovial membrane, which was so closely related to the other serous membranes, which, as is well known, are so very prone to miliary tuberculosis.

CORRESPONDENCE.

SUDDEN DEAFNESS FROM MUMPS.

To the Editor of THE MEDICAL NEWS.

SIR: In the interesting article by Dr. George C. Harlan, on this subject, in the last number of your Journal, he states "it is only recently the clinical histories of a few such cases have been reported." In 1874 I published in *The American Journal of the Medical Sciences*, vol. lxviii. page 377, an article on disease of the internal ear, in which I gave a detailed account of two cases of sudden deafness from mumps, and I also made some remarks on the cause of the affection.

Since this report seems to have been ignored by the recent writers upon this subject, I have compiled all my cases of this kind, including of course those just alluded to. They will appear in the next number of the *Archives of Otology*, soon to be issued.

I am sir, very respectfully, etc.,

D. B. ST. JOHN ROOSA.

NEW YORK, 24th March, 1883.

A TOOTH AT BIRTH.

To the Editor of THE MEDICAL NEWS.

SIR: Yesterday I drew a tooth for an infant seventeen days old. The child was a female, one-quarter Sioux. When it came into the world it had this tooth, a lower central incisor, developed as now presented.

The crown and body of the tooth seemed fully developed, and as large as the usual milk tooth. The attachment to the gum, instead of a root, appeared to be a mere fleshy connection, and hence not very solidly implanted. Moreover, it gave the child great uneasiness in nursing. The tongue in moving over the sharp surface presented by the tooth, in every attempt at drawing milk from the breast, became abraded, and finally ulcerated. As soon as the tooth was extracted, the child took the breast with avidity. The pain caused by nursing had undoubtedly interfered with the child getting a sufficient amount of nourishment.

I thought this case sufficiently unique to justify at least a brief reference to it.

Yours, etc.,

FORDYCE GRINNELL,

PHYSICIAN TO PINE RIDGE AGENCY, DAKOTA.

PERIOD OF STUDY REQUISITE TO ENTER THE ARMY MEDICAL DEPARTMENT.

To the Editor of THE MEDICAL NEWS.

SIR: Dr. Harvey L. Byrd, of the Baltimore Medical College, in his letter published in THE MEDICAL NEWS of March 10th, makes this statement: "It has long been the custom of the United States Army and Navy Medical Examining Boards to pass those *only* who *are* qualified to enter the medical service of our common country, without regard to period of study, or whether they are M.D.'s or not."

Dr. Byrd is evidently misinformed, at least in so far as the army is concerned, and the last clause of his assertion is misleading, and places the Medical Corps

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of the Army, and I think of the Navy also, in a false position, which we naturally resent.

The law on the subject is clear, and the custom of the Army Board conforms to this law, namely, An Act of Congress approved June 23, 1874, ... "Candidates [for the Medical Corps of the Army] must be between twenty-one and twenty-eight years of age, and graduates of a medical college, having a thorough and complete course of medical education, evidence of which must be submitted to the Board before examination." Any graduate of a medical college, graduated on *merit*, without regard to period of study, would, I believe, stand a poor chance of passing an Army Medical Board, or even of coming before it for examination, if he should be so rash as to apply for an invitation to do so.

The law requiring that a candidate shall be a graduate of a medical college, is slightly varied by paragraph 2273 of Army Regulations, 1881, which requires the candidates to be "graduates of a regular medical college." This is further modified by General Order No. 65, Current Series, 1882, which directs that a candidate must be "a graduate of a regular medical college, evidence of which, his diploma, must be submitted to the Board."

If any non-graduate ever entered the Medical Corps, United States Army, prior to 1868, I have not heard of it, and I am sure none has since.

Yours very respectfully,
J. C. WORTHINGTON,
Captain and Assistant Surgeon, U. S. Army.

FORT WAYNE, DETROIT, MICH.,
March 26, 1883.

OBITUARY.

WILLIAM HOLME VAN BUREN, M.D., LL.D. (Yale).

ON Sunday morning, March 25th, after an illness that followed a slight stroke of paralysis, and had been prolonged through many months, Dr. Van Buren died.

He was prominent for so many years as a teacher of anatomy and surgery in New York, so widely and so favorably known as a writer, so generally sought in consultation, that the principal features of his life and character are doubtless familiar to most of our readers.

He was born in New York, April 5, 1819. His great-grandfather was a Holland physician, and came to New York in 1700, and practised medicine there until his death; he was succeeded by his son, the grandfather of the subject of this sketch, who practised in the same city until his death in 1812. Dr Van Buren's mother returned to Philadelphia after the death of his father, which took place during his childhood, and there he was educated until he entered Yale College in 1834. He left his class during its junior year, returned to Philadelphia, and studied medicine in the University of Pennsylvania. In 1838, he went to Paris with his preceptor, and studied in that city until the autumn of 1839, occupying the position of *externe* under Velpeau at La Charité, and was graduated at Philadelphia in 1840. It is worthy of remark that the subject of his thesis was the immovable apparatus, the starch dressing, in the treatment of fractures; that even at this early period of his career he appreciated the value of and sought to popularize this method of treatment, which did not win general recognition until after the lapse of more than twenty years. The thesis received the signal honor of publication by the faculty of his school, and young Van Buren, who was just completing his twenty-first year, was invited to lecture upon the subject, and to give a practical demonstration of the method in the amphitheatre, where, the day before, he was sitting as a student.

Two months after graduation he was appointed assistant surgeon in the Army, ranking first in the competitive examination, and entered upon his duties in the following July. After a short service at the station in Buffalo, he went to Florida, on the staff of General Wool, returning in 1842 to marry the eldest daughter of Valentine Mott, whose acquaintance he had made in Paris. After a short stay in Florida he was assigned to duty in Washington, on the staff of General Scott. He resigned from the army in 1845, and took up his abode in New York.

After serving for several years as Prosector to the Chair of Surgery in the University of the City of New York, under Dr. Mott, he was appointed, in 1852, to the Chair of Anatomy in the same school, succeeding Prof. Granville Sharp Pattison, a position which he held until 1866, and combined with it the duties of Professor of Clinical Surgery, with especial reference to diseases of the genito-urinary system.

In 1847 he was appointed Surgeon of Bellevue Hospital, and in 1852 Surgeon of the New York Hospital, and subsequently held a similar position in St. Vincent's Hospital. For several years previous to his appointment as Professor of Anatomy, he gave private instruction to students of medicine, in connection with Dr. Metcalf and two or three other young practitioners.

His life during the first fifteen or twenty years of his practice in New York was extremely laborious. He spared no pains to perfect himself in his profession, to do thoroughly the work that came to him to be done. Success came promptly, and was complete; and it showed itself not only in the extent of his practice, the number of his *clientèle*, but also and especially in the recognition and respect given him by the profession.

At the outbreak of the war, when associations to aid the wounded were forming all over the country, he was chosen to represent the hospital surgeons of New York in a committee composed of representatives from four of these associations, to visit Washington for consultation concerning the needs of the service. Out of this visit grew the Sanitary Commission, in the organization and management of which he took a very prominent part during the five years, as a member of the Executive Committee. It brought him, also, into close relation with the officers of the Government, who showed their appreciation of his ability by offering him the position of Surgeon-General, and, on his declining to accept the offer, by asking him to name a candidate.

His health, which had been much affected by his residence in Florida, failed under the pressure of this work, and in 1863 he contracted typhus fever and was brought almost to the point of death. In 1865 he spent six months in Europe with his family, and on his return purchased a country-place at Shrewsbury, New Jersey, and began to reduce his active practice, spending a portion of each week at this place.

About 1868 he was appointed Professor of the Principles of Surgery at Bellevue Hospital Medical College, a position which he held until his death. In 1862, when only forty-three years old, he resigned from the New York Hospital, his only remaining active surgical position; he was appointed consulting surgeon a year or two afterwards, and in 1876 was elected President of its Medical Board, and delivered the public address in Chickering Hall on the opening of the new hospital building. At the time of his death, and for many years previously, he was a member of the consulting staff of Bellevue, the Woman's, and the Presbyterian Hospitals, and of several dispensaries. He was President of the New York Pathological Society for two terms, and Vice-president of the New York Academy of Medicine. In 1867 he was elected a corresponding member of the *Société de Chirurgie* of Paris, and in

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1879 was one of the founders of the New York Surgical Society.

His published works consist of translations of Morel's *Histology*, and Bernard and Huette's *Operative Surgery*, a small volume composed largely of collected papers under the title of *Contributions to Practical Surgery*, 1865; *Lectures upon Diseases of the Rectum*, 1870, and a second greatly enlarged edition of the same in 1881, and a text-book on *Diseases of the Genito-Urinary System with Syphilis*, in collaboration with Dr. E. L. Keyes, in 1874. In addition to these he wrote and published many articles in the medical journals, including a recent valuable contribution to our own columns on the subject of litholapaxy (THE MEDICAL NEWS, January 14, 1882); a paper on "Aneurism," read before the International Medical Congress, in Philadelphia, in 1876, and (his last work) the article on "Inflammation" in the *International Encyclopædia of Surgery*, a paper in which his large experience, wide reading, sound judgment, and broad and scientific views appeared to great advantage.

Dr. Van Buren was preëminently a painstaking man. Whatever he did was done thoroughly and to the best of his ability. He was never careless or hasty in his work. He brought to his daily practice as well as to the preparation of his papers and lectures, his full and earnest attention, all the powers of a mind and judgment that were constantly strengthening by study and exercise, and a very keen sense of professional responsibility. His powers of analysis and exposition were remarkable. His success as a lecturer was of the highest order, and the intrinsic value of his written work was embellished by the accuracy, grace, and polish of his language.

As an operator, he is ranked among the first, by those who were familiar with his practice during the more active part of his career. The same extent and accuracy of knowledge; the deliberation, neatness, and grace of execution, which characterized his other work appeared also in this, and his sound judgment, fertility of resource, promptness of decision, and self-reliance carried him not only safely, but even brilliantly, through the most trying emergencies. It was a revelation even to see him pass a catheter, to see him bring even to that simple act so much dexterity, gentleness of touch, keenness of observation, and attention to detail. Notwithstanding the possession of all these qualities and his success as an operator, he disliked to use the knife, and he never resorted to it unless the indications were imperative; his counsel in this respect always leaned to the side of conservatism.

His mind was not a nimble one; he thought slowly and deliberately, but he thought well and deeply. His perception was keen, his observation close and far-reaching, his grasp of a subject broad and strong; his mind never rested on details, but always sought the deeper cause, the broader generalization. These qualities were familiar to all who sought him in consultation, and are to be recognized in his printed works, and in his influence upon the general conception and treatment of the specialties with which he was identified. At the same time, he had a very lively sense of the value of details, especially in treatment, and he devised some very valuable and ingenious additions to the surgical armamentarium.

In person, he was a large, handsome, dignified man, with whom no new acquaintance would be familiar, whom no one would treat without respect. Quiet and self-contained in manner, scrupulously neat and careful in person and dress, he always appeared for what he was—a gentleman by birth and breeding. When he gave his trust he gave it completely, and his judgment of character was seldom at fault, his confidence rarely abused. His sense of professional responsibility was great, and while he often refused to take a new case, he never neglected one that was under his care. Even within a few years, after he had long ceased to visit in practice, and at a time when he was guarding his failing health most carefully, he has left his bed at midnight and driven ten miles to answer a call from a gentleman who had had a chill after the passage of a catheter in his office, in the morning. And often when consulted in a case, even a hospital one, which he had turned over to another, he would say, "Well, I suppose I have some responsibility in the matter; I will see him with you."

His acquirements, outside of his profession, were considerable; his literary tastes and habits strong and cultivated. He had a good knowledge of French, some knowledge of German, and occupied a portion of his leisure in reading the Latin classics, while his acquaintance with the best English literature was wide and accurate. His extensive knowledge, scholarly tastes, quick humor, and fertile fancy made him a delightful companion, and almost his last words, as he was sinking into the unconsciousness that preceded his death, were a playful affectionate recognition of one who has been to him for many years as devoted as a son.

"He was a man, take him for all in all,
I shall not look upon his like again;"

NEWS ITEMS.

RICHMOND, INDIANA.

(*From our Special Correspondent.*)

EPIDEMIC OF MEASLES.—Richmond, Indiana, was invaded by an epidemic of measles, continuing through the last four months of 1882, wherein there was an extraordinary large number of cases, and but few deaths. The County Health Officer reports 3,536 cases of measles in a population of 15,543, with but 12 deaths from measles directly, 3 deaths from whooping-cough following measles, and 1 death from croup following measles.

LONDON.

(*From our Special Correspondent.*)

URINE-TESTING.—At the last meeting of the Clinical Society of London the important subject of urine-testing was brought up by Dr. George Johnson. Already at the Pathological Society Drs. Pavy, Oliver, and Ralfe have this session given demonstrations of new tests, etc. Dr. Ralfe's communication was of considerable importance. It was to the effect that, although picric acid, ferrocyanide of potassium, and the other new tests are valuable as affording us means of detecting very minute traces of albumen, yet they are imperfect, as not by themselves distinguishing between the different forms of albumen found in urine. He showed—1. That urine precipitated by ferrocyanide of potassium, and also coagulated by heat, contained serum albumen. 2. Urine precipitated by ferrocyanide of potassium, and not coagulated by heat till citric acid be added, contains alkali-albumen, or casein. 3. While if the addition of carbonate of sodium be necessary before coagulation by heat occurs, the albumen is in the form of acid-albumen or syntonin. 4. Urine coagulated by ferrocyanide of potassium, and not precipitated by heat at all, but giving a red color with an alkaline solution of copper sulphate, contains parapeptone. Heat, therefore, must be employed in all cases where the more delicate tests have shown the presence of albumen, to determine what form that albumen is present in. This knowledge throws much light upon the other conditions of the urine.

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A CASE OF FRACTURE OF THE RADIUS AND DISLOCATION FORWARDS OF THE ULNA AT THE WRIST, IN WHICH THE LOWER END OF THE LATTER BONE WAS REMOVED TO EFFECT REDUCTION.—MR. R. I. GODLEE, at the same meeting, related the history of a patient, aged twenty, who was jumping a high jump at a gymnasium, when his feet slipped forwards on a badly secured mat, and the whole weight of his body fell suddenly on his hands, which were placed behind him. The left radius was fractured at the junction of the middle and lower thirds, the *upper end* of the fracture being compound; the lower end of the ulna was displaced forwards and projected in front of the carpus beneath the skin. All attempts at reduction with or without an anæsthetic proved unsuccessful. An incision was made over the lower end of the ulna, and a hook was placed under the tendon of the carpi ulnaris, which had slipped behind the bone; but the bones could not be replaced until first the styloid process and then the lower end of the ulna had been sawn off. The wound was treated antiseptically, and healed without any inflammatory disturbance. In ten days it was placed in a plaster-of-Paris apparatus, and in about six weeks passive movement was commenced. The limb is now about as useful as the other, and can be employed for gymnastic exercises as well as for the ordinary uses of daily life; but pronation is not quite as free as before. The patient was shown.

MR. CLEMENT LUCAS stated that he had excised the lower end of the ulna, and the case recovered without any adduction; this he believed to be due to the greater power of the abductor muscles.

MR. C. HEATH said that he had had a similar experience, and thought the operation of excision of the lower end of the ulna a very good one.

MR. R. I. GODLEE replied that there was no adduction of the hand in cases of congenital absence of the ulna, and this he explained by the fact that the carpus articulated with the radius, not the ulna.

ACUTE NECROSIS OF THE RIGHT ORBITAL PLATE OF FRONTAL BONE.—DR. PEARSON and DR. BROADBENT reported at the same meeting a case of a girl, æt. nine years and eight months, in whom four days after exposure to cold on a foggy November afternoon, symptoms of stiff neck, relaxed throat, causing restless nights, began, but so gradually that medical attendance was not called in till the fourth day. When first seen, the noticeable point in the case was that the child put both hands to her head to lift it when asked to sit up in bed. On the fifth day of the disease there was marked improvement, after a saline aperient and four-grain doses of salicylate of sodium every four hours. In the morning the right upper eyelid had got puffy, but the swelling went down again. There were slight droppings of blood from the nose three separate times during the day. On the sixth day, after a restless night, with some wandering, followed by a morning sleep of two and a half hours, the child woke up sufficiently well to listen to fairy tales and talk about them. She felt the neck so much better that she volunteered to get out of bed alone to show her throat, but still holding one hand lightly to the head. There was some sensitiveness to light, and the right eyelid was again puffed. The same evening great restlessness set in, the child throwing the legs and arms about and calling out. The tumefaction of the right eyebrow had now markedly increased, and there was strong delirium. The temperature at 11.30 P. M. was 103.3°, pulse 140, respiration 38. Bromide of potassium was added to the salicylate mixture, and, after a sleep of an hour and twenty minutes, the pulse was 120, and temperature 101.6°. On the seventh day the right eyebrow was quite tense and glazed, and livid with tumefaction, and delirium continued. At 10 A. M. the temperature was 104.° Two leeches were applied to the right temple, and three grains of calomel were given, to be followed by a saline purge. Towards evening the strength perceptibly diminished. Just after midnight the pulse was 138, respiration 52, temperature 105.7°. At 4.30 A. M., temperature 106.4°; 6.30 A. M., temperature 107.7°; at 9.45 A. M., temperature 107.9°; and death took place at 10.45 on the morning of the eighth day from the commencement of symptoms.

Post-mortem examination, five hours after death.—At once on removing the scalp, the frontal portion of the longitudinal sinus showed itself over-charged, staining the periosteum externally. On lifting the brain, the dura mater covering the petrous portion of the right temporal bone was found smeared with thick yellow lymph. The same lymph smeared the pons and the parts comprised in the circle of Willis. The right temporo-sphenoidal lobe of the brain was protuberant, due to serous infiltration from obstruction to the venous return. The right optic nerve and the fat surrounding it were stained with the same clinging yellow lymph. The periosteum of the right orbital plate of the frontal bone was stained with inflammation, and destroyed in patches.

MR. PEARCE GOULD asked if any pulsation was at any time noticed in the orbital swelling, as thrombosis of the cavernous sinus was stated to be one of the causes of pulsating exophthalmos, although that condition was at any rate more generally due to arterio-venous communication.

MR. J. BLACK asked if the swelling fluctuated, and whether an incision would have been of any avail.

DR. MAHOMED referred to a similar case in which the septic nature of the affection was shown after death by the presence of numerous abscesses in the brain.

DR. BROADBENT replied that there was neither pulsation nor fluctuation in the swelling. The orbital periosteum was intact, and the effusion within it was serous. The dura mater was pierced in several places. He had considered that the free mobility of the eye, and entire absence of proptosis excluded any inflammatory effusion within the orbit.

ON PICRIC ACID AS A TEST FOR ALBUMEN AND SUGAR IN THE URINE.—The following is an abstract of DR. GEORGE JOHNSON'S paper on this interesting subject, also presented at this meeting of the Clinical Society:

Although picric acid has for ten years or more been used as a test for albumen in the urine, its value has not been fully appreciated. It may be used in the form of a saturated aqueous solution, made by dissolving the crystals in about fifty times their volume of boiling water, or in the form of powder, which may conveniently be carried in a pocket-case.

The solution poured on the surface of the urine in a sloping test-tube will cause opalescence in a specimen of albuminous urine diluted much beyond the point at which nitric acid fails to act. The powder of crystals equal in bulk to a pepper-corn, when shaken up with about a drachm of urine will be dissolved, and immediately coagulate any albumen present.

Picric acid boiled with a solution of potash is a most delicate test for glucose. The reduction of yellow picric to the deep red picramic acid by glucose when boiled with potash, although noticed by Bram nearly twenty years ago, appears not to have been utilized as a practical test; ʒj of a solution of grape sugar (gr. j to ʒj) is mixed with ʒss of liquor potassa (B. P.) in 10 of a saturated solution of picric acid and made up to ʒiv with distilled water. The mixture is placed in a boiling tube ten inches long and three-quarters of an inch wide, having a mark made at the height of ʒiv. It is then heated to the boiling-point and kept boiling for sixty

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seconds. The resulting color indicates gr. $\frac{1}{4}$ sugar to ℥j. This color may be exactly imitated by a solution of acetate of iron with excess of acetic acid, which is used as a standard in making a quantitative analysis. The depth of color is directly proportioned to the amount of sugar present to decompose the picric acid.

When the color is deeper than the standard, the dark liquid is diluted until it and the standard have the same tint. The dilution is effected in a tube twelve inches long, divided into equal $\frac{1}{10}$ and $\frac{1}{100}$ parts. By the side is a tube of equal size containing the standard color.[1] A more exact comparison of the colors is made by looking through equal columns of the saccharine liquid and the standard in flat-bottomed tubes held over white paper or porcelain. Ten minims of solution of picric acid are rather more than equivalent to the sugar ($\frac{1}{8}$ gr.) in ℥j of a solution containing gr. j to ℥j

In making an analysis, the picric acid must be in proportion to the amount of sugar. If the proportion of sugar be as high as six grains to the ounce, about a drachm of solution of picric acid will be required for a drachm of the sugar solution. When the amount of sugar is more than six grains to the ounce, the liquid should be diluted in a definite proportion before it is analyzed. Distilled or pure rain water is used for dilution. Hard water becomes turbid when mixed with caustic potash. If undiluted urine is rendered turbid by phosphates in process of testing, it should be cleared by filtration. The measurements and dilutions must all be accurate.

The presence of albumen, even in large amount, does not interfere practically with the picric acid test. The accuracy of the test is proved by practically identical results from analyzing the same specimens by Dr. Pavy's ammonio-cupric solution, and by picric acid and potash. Some tabular statements of results are given.

An analysis of about three hundred specimens of normal urine by the picric acid process indicates the constant presence of a substance capable of reducing picric acid and cupric oxide in proportions equivalent to from 0.5 to 0.7 grain of glucose per ounce, but apparently differing from glucose in the fact that it cannot be made to undergo the vinous fermentation under the influence of heat.

DR. SOUTHEY and MR. MCHARDY both spoke of the great delicacy of the picric acid test for albumen, and the former said that urine which must be considered normal often contained albumen.

DR. JOHNSON doubted very much whether even the smallest traces of albumen are found in urine as a physiological result.

SIR JOSEPH FAYRER took the chair at the meeting of the Medical Society of London for the first time as the newly elected President. He announced that next week Dr. Manson, of China, will exhibit to the Society a newly discovered parasite—*Distoma Ringeri*—and will read a paper on the disease caused by it—endemic hæmoptysis.

THE ERICHSEN TESTIMONIAL.—On Saturday, March 10, at a large gathering of Professor Erichsen's old pupils and friends, he was presented by them with a marble bust of himself by Thornycroft, and a purse of money, which he at once gave to University College, to found in perpetuity a Prize for Operative Surgery.

INVESTIGATION OF CATTLE DISEASES.—A press dispatch from Washington states that Dr. D. E. Salmon, who has been for several years employed by the Department of Agriculture to conduct investigations into the diseases of swine and poultry, has been called to Washington by Commissioner Loring, to conduct like investigations on a more elaborate scale. Land is to be leased, and animals provided for experiments on inoculation, etc., and the Pasteur system of inoculation will be adopted with such additions and modifications as have been suggested by Dr. Salmon's own discoveries and experiences. The investigation will be conducted with a special view of ascertaining the nature, and the means of prevention and cure of Texas cattle fever, pleuro-pneumonia, and hog and chicken cholera. The results of the researches already made by Dr. Salmon are such as to make him feel reasonably confident that he will eventually be able to discover remedies which will enable any farmer to prevent or cure the diseases mentioned.

THE PROTECTION OF MEMPHIS FROM YELLOW FEVER.—According to a press dispatch, owing to the unsatisfactory condition of the laws governing quarantine at the mouth of the Mississippi, the authorities of Memphis have determined to inaugurate a system of precautionary measures that will enable them to prevent the introduction of contagious diseases during the summer months. A few days ago President Holden, of the Legislative Council, petitioned the State Legislature for an appropriation to defray the expenses of local quarantine in case of necessity, and the President of the City Board of Health has issued a proclamation warning the citizens that a thorough house-to-house inspection would begin Monday, and every building, front and back yards, outhouses, stables, etc., would be thoroughly examined, with a view to having them put in the most complete sanitary condition.

The President of the Council backs up the proclamation with the warning that the owners of unsanitary premises will be punished to the fullest extent of the law for violations of the sanitary ordinance. This system of inspection will be continued throughout the summer, and until all possibility of danger is passed. The first intimation of yellow fever or other contagious diseases, at New Orleans or other points on the lower Mississippi, will be the signal for the establishment of a rigid quarantine against the places. The troubles of 1878 and 1879 have not been forgotten, and the authorities are determined that they shall not be repeated, if it is in the power of man to prevent them.

AMERICAN LARYNGOLOGICAL ASSOCIATION.—The Fifth Annual Convention of the above Association will be held in the hall of the Academy of Medicine, No. 12 West Thirty-first Street, New York City, commencing Monday, May 21, 1883, at 10 A. M., and continuing during the two following days.

MEETINGS OF STATE MEDICAL SOCIETIES.—The Kentucky Medical Society will hold its annual meeting on April 4th, and on the same day the Mississippi State Medical Society will meet at Meridian, and the Louisiana State Society at Shreveport.

COMMENCEMENT OF THE IOWA COLLEGE OF PHYSICIANS AND SURGEONS.—The Iowa College of Physicians and Surgeons held its commencement March 6th, and granted diplomas to three graduates.

THE DISPENSARY OF THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE has treated during the first two weeks of its existence 397 patients.

LECTURES UPON MATERIA MEDICA AT THE U. S. NATIONAL MUSEUM.—Dr. D. W. Prentiss has been invited to deliver a course of lectures in connection with the department of Materia Medica of the National Museum.

[1] This picro-saccharimeter was made by E. Cetti, 36 Brooke St., Holborn, E. C.

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The course will consist of eight lectures, and will be illustrated by specimens and other material from the collections of the Museum.

The lectures will be delivered at 4 o'clock on successive Saturday afternoons, beginning Saturday, April 7.

These lectures are free. Persons desiring to attend must be provided with tickets, which may be obtained by application through the mail or in person, to Mr. S. C. Brown, Registrar of the Museum.

CINCINNATI TRAINING SCHOOL FOR NURSES.—A school for the systematic training of nurses has been started in Cincinnati, under the presidency of Dr. Geo. B. Orr.

A NEW NEW YORK STATE MEDICAL SOCIETY.—The conviction that this State must have a medical society, in affiliation with the American Medical Association and the best physicians of this country and Europe, is becoming more general and profound. That the merest fraction of the medical corps of this State is to dominate the entire body, to disrupt, degrade, and disgrace it, no one can believe; and physicians of the State will deserve ruin and disgrace if they passively submit to be thus outraged and trampled upon. It needs but a strong "call," and the new State Society, supported by the whole country, and all the medical press (two journals excepted), would spring into vigorous being.—*Gaillard's Med. Journal*, March 10, 1883.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending March 17, 1883, indicate that bronchitis and pneumonia have decreased in area of prevalence. There was no marked increase in any disease reported.

Including reports by regular observers and by others, diphtheria was reported present during the week ending March 17, and since, at sixteen places, scarlet fever at eighteen places, and measles at fourteen places. No smallpox reported in Michigan.

PROF. NEUMANN, the successor to the chair of the late Professor von Sigmund, in the University of Vienna, on February 8, delivered an eloquent eulogy of his predecessor, in which he claimed for him the honor of first having instituted a systematic clinic of his specialty.

PROF. V. BERGMANN, who for some weeks has been incapacitated from his duties on account of sickness, has now entirely regained his health.

PROF. V. BERGMANN'S SUCCESSOR.—PROF. MAAS has been appointed Professor of Surgery in Würzburg, in the place vacated by the resignation of Prof. Bergmann.

PROF. VON ARLT has been decorated with the star of a Commander of the Order of Francis-Joseph.

THE LIBRARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY of London contains 33,500 volumes.

SANITARY EXHIBITION AT BERLIN, GERMANY.—It will be remembered that it was the intention of the German authorities to open a Hygienic Exhibition, in Berlin, in May of last year. Unfortunately, however, a few days before the proposed opening the magnificent building, which had been constructed for the purpose of the exhibition, was destroyed by fire. This caused a temporary suspension of the whole matter, but the deep interest felt in the success of such an undertaking by the Emperor, Empress, Crown Prince, and medical and scientific men, has tended to so strengthen the committee having the matter in charge, that new buildings have been constructed and enlarged, and improved accommodations made for such an exhibition; and it is now expected that it will be ready to be opened on the first day of May next.

DRAIN-TESTING.—The Sanitary Inspector for Glasgow reports that of 236 properties, the drains of which were examined last year, only seven were found thoroughly tight and efficient—229 permitting the escape of sewer-air into the dwellings.

ASTLEY COOPER PRIZE.—The next triennial prize of $1500 will be awarded to the author of the best essay or treatise on "Diseases and Injuries of the Nerves and their Surgical Treatment, together with the operations performed upon nerve-trunks in the treatment of various diseases, and descriptions of the changes which ensue in other structures as well as in the nerves themselves from these operations." The condition annexed by the testator (the late Sir Astley P. Cooper, Bart.) is, "That the essays or treatises to be written for such prize shall contain original experiments and observations which shall not have been previously published, and that each essay or treatise shall (as far as the subject shall admit of) be illustrated by preparations and by drawings, which preparations and drawings shall be added to the museum of Guy's Hospital, and shall, together with the work itself, and the sole and inclusive interest therein and the copyright thereof, become henceforth the property of that institution, and shall be relinquished and transferred as such by the successful candidate." The essays must be written in the English language, or, if in a foreign language, accompanied by an English translation, and must be sent to Guy's Hospital on or before January 1, 1886, addressed to the physicians and surgeons of Guy's Hospital.—*Lancet*, March 10, 1883.

PRIZE FOR THE SOLUTION OF THE QUESTION AS TO THE PREVENTION OF POLLUTION OF RIVERS.—The King of Saxony offers a prize of a silver "jardinière," with nine hundred marks, to be awarded by the German Fishery Commission for the best essay on "The Pollution of Water-courses and its Prevention, with special reference to the Maintenance of the Life and Health of Fish."

Essays are to be sent to Dr. P. Boerner, 8 Burggrafen Strasse, Berlin, W., before December 31, 1884, from whom further information may be obtained.

COMPLIMENTARY DINNER TO DR. OLIVER WENDELL HOLMES.—The leading members of the medical profession of New York will give a complimentary dinner to Dr. Oliver Wendell Holmes at Delmonico's, Thursday evening, April 12. It is tendered as an expression of appreciation of the honor Dr. Holmes has won for American medical and general literature during the past forty years.

NEPHRECTOMY.—This rare operation was performed at the Queen's Hospital, Birmingham, on March 3d, by Mr. West, and the case was reported on the 7th to be doing well. The patient on whom the operation was performed was a boy, aged fifteen, who, on last Guy Fawkes day, sustained a traumatic rupture of the left kidney. Suppuration ensued, and for this aspiration and then free incision were employed; but as the boy was discharging about eighty ounces of putrid ammoniacal urine mixed with pus through the loin, and as he was getting into a hectic condition, Mr. West decided to remove the kidney. The kidney was of great size, and was full of suppurating cysts.—*Lancet*, March 10, 1883.

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LEPROSY IN HAWAII.—The *Commercial Advertiser* of Honolulu, referring to reports of the general spread of leprosy in Hawaii, says: "The districts of Wailuka, Waikee, Wakawas, and Ulspalakua, of the island of Wauai, comprising an area of 300 square miles of the most densely populated portion of the kingdom, with 10,000 inhabitants, have been thoroughly searched for lepers by the Board of Health. The result was that twenty-eight native and no foreign lepers were found. There are ten foreign lepers at the leper settlement at Molokai, most of whom contracted the disease by licentiousness."

BOSTON PLUMBING ORDINANCE.—The following is the text of the ordinance regulating plumbing in the city of Boston, which passed the City Council the 16th inst., and has received the Mayor's signature.

"SECTION 1. No person shall carry on the business of plumbing unless he shall have first registered his name and place of business in the office of the Inspector of Buildings, and notice of any change in the place of business of a registered plumber shall be immediately given to said Inspector.

"SECT. 2. Every plumber, before doing any work in a building, shall, except in the case of repairs or leaks, file at the office of the Inspector, upon blanks to be provided for the purpose, a notice of the work to be performed; and no such work shall be done in any building without the approval of said Inspector.

"SECT. 3. Every building shall be separately and independently connected with the public sewer, when such sewer is provided; and, if such sewer is not provided, with a brick and cement cesspool of a capacity to be approved by the said Inspector.

"SECT. 4. Drains and soil-pipe through which water and sewage are used and carried shall be of iron, when within a building, for a distance of not less than five feet outside of the foundation walls thereof. They shall be sound, free from holes and other defects, of a uniform thickness of not less than one-eighth of an inch for a diameter of four inches or less, or five-thirty-seconds of an inch for a diameter of five or six inches, with a proportional increase of thickness for a greater diameter. They shall be securely ironed to walls, laid in trenches of uniform grade, or suspended to floor-timbers by strong iron hangers, as the said Inspector may direct. They shall be supplied with a suitable trap, placed, with an accessible clean-out, either outside or inside the foundation wall of the building. They shall have a proper fall towards the drain or sewer, and soil-pipes shall be carried out through the roof, open and undiminished in size, to such height as may be directed by said Inspector; but no soil-pipe shall be carried to a height less than two feet above the roof. Changes in direction shall be made with curved pipes, and connections with horizontal pipes shall be made with Y-branches.

"SECT. 5. Rain-water leaders, when connected with soil or drain-pipes, shall be suitably trapped.

"SECT. 6. Sewer, soil-pipe, or waste-pipe ventilators shall not be constructed of brick, sheet-metal, or earthen-ware, and chimney-flues shall not be used as such ventilators.

"SECT. 7. Iron pipes, before being put in place, shall first be tested by the water or kerosene test, and then coated inside and out with coal-tar pitch, applied hot, or with paint, or with some equivalent substance. Joints shall be run with molten lead, and thoroughly calked and made tight. Connections of lead pipes with iron pipes shall be made with brass ferules, properly soldered and calked to the iron.

"SECT. 8. Every sink, basin, bath-tub, water-closet, slop-hopper, and each set of trays, and every fixture having a waste-pipe, shall be furnished with a trap, which shall be placed as near as practicable to the fixture that it serves. Traps shall be protected from siphonage or air-pressure by special air-pipes of a size not less than the waste-pipe; but air-pipes for water-closet traps shall be of not less than two-inch bore for thirty feet or less, and of not less than three-inch bore for more than thirty feet. Air-pipes shall be run as direct as practicable, and shall be of not less than four-inch bore where they pass through the roof. Two or more air-pipes may be connected together or with a soil-pipe; but in every case of connection with a soil-pipe, such connection shall be above the upper fixture of the building.

"SECT. 9. Drips or overflow pipes from safes under water-closets and other fixtures, or from tanks or cisterns, shall be run to some place in open sight, and in no case shall any such pipe be connected directly with a drain, waste-pipe, or soil-pipe.

"SECT. 10. Waste-pipes from refrigerators or other receptacles in which provisions are stored, shall not be connected with a drain, soil-pipe, or other waste-pipe, unless such waste-pipes are provided with traps, suitably ventilated, and in every case there shall be an open tray between the trap and the refrigerator.

"SECT. 11. Every water-closet, or line of water-closets on the same floor, shall be supplied with water from a tank or cistern, and the flushing pipe shall not be less than one inch in diameter.

"SECT. 12. Pipes and other fixtures shall not be covered or concealed from view until after the work has been examined by the said Inspector, and he shall be notified by the plumber when the work is sufficiently advanced for inspection.

"SECT. 13. Plumbing work shall not be used unless the same has first been tested by the said Inspector with the peppermint, ether, or water test, and by him found satisfactory.

"SECT. 14. No steam-exhaust shall be connected with any soil or waste-pipe, or drain which communicates with a public sewer.

"SECT. 15. Water-pipes in places exposed to frost shall be packed with mineral wool, or other substances equally good, and they shall be cased to the satisfaction of the said Inspector.

"SECT. 16. A grease trap shall be constructed under the sink of every hotel, eating-house, restaurant, or other public cooking establishment.

"SECT. 17. The provisions of Sections 3–13, inclusive, and of Section 15 of this ordinance, shall apply only to buildings erected, or to work performed, after its passage."—*Sanitary Engineer*, March 22, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 19 TO MARCH 26, 1883.

BURTON, HENRY G., *Captain and Assistant Surgeon.*—To be relieved from duty in the Department of the East, and will report in person to the commanding general Department of Dakota, for assignment to duty.—*Par. 1, S. O. 67, A. G. O., March 22, 1883.*

PORTER JOSEPH Y., *Captain and Assistant Surgeon.*—To be relieved from duty in the Department of the South, and will report in person to the commanding general Department of Texas, for assignment to duty.—*Par. 1, S. O. 67, A. G. O., March 22, 1883.*

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCES.

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ORIGINAL LECTURES.

GASTRIC CANCER;

THE DIAGNOSIS BETWEEN CANCER OF THE STOMACH AND CANCER OF THE PANCREAS; RECTAL ALIMENTATION AND THE USE OF ARTIFICIALLY DIGESTED FOOD.

A Clinical Lecture, delivered at the Philadelphia Hospital, January 31, 1883.

BY JAMES TYSON, M.D.,

PROFESSOR OF GENERAL PATHOLOGY AND MORBID ANATOMY IN THE UNIVERSITY OF PENNSYLVANIA, AND ONE OF THE ATTENDING PHYSICIANS TO THE PHILADELPHIA HOSPITAL, ETC.

(Reported by WILLIAM H. MORRISON, M.D.)

GENTLEMEN: Before making a personal examination of this patient, I wish to call your attention to her extremely cachectic appearance. This is seen not only in the pallor of her face, but also in the almost bloodless condition of her lips. The little bloodvessels, which, seen through the transparent mucous membrane, give the red color to the lips, are either almost empty, or filled with blood which is deficient in red corpuscles.

As to her history, she is forty years of age; is married; her husband living; she has had two children. Three years ago a hard lump appeared at the left angle of the mouth. This gradually ulcerated, and was removed two years ago by Dr. Wilson, at the Woman's Hospital. The growth, she tells us, was pronounced a cancer. The scar left by its removal is still visible, but there has been no reappearance of the disease *in loco*. Before the operation there had been a gradual failure of strength and weight, and instead of her general condition improving after the removal of the tumor, it seemed rather to continue to fail.

She was admitted to the hospital September 15, 1882. At that time she complained of dyspepsia. The indigestion was characterized by acidity and the disposition to discharge acid fluid. This was the only trouble complained of. The efforts to counteract this acidity by the ordinary alkaline mixtures were but partially successful, and it was only by the use of large quantities of lime-water and other alkalies, and the final adoption of a pure-milk and lime-water diet, that this acidity was relieved sufficiently to secure her tolerable comfort, and at present she does not suffer much from this symptom. There soon supervened upon this condition a tendency to nausea, and a disposition to vomit. In this vomiting there was not, nor has there been since, anything like regularity, nor a fixed relation to the meals. Large quantities have never been vomited, and this has never been a troublesome symptom. The matters discharged were usually an acid fluid and partially digested food; occasionally, however, she vomited matters different from those described, and to these I shall refer in a few moments. There has also been some constipation, not obstinate constipation, for the bowels are easily relieved by ordinary aperient remedies.

As to the second kind of vomited matters, she tells us that they consist of a substance resembling coffee grounds. She says that last night, for instance, she vomited a teacupful of this brown substance, which, in her own language, looks like the sediment which remains in the cup after the coffee has been drained off. This description is spontaneous, and, although we have never seen the substance, I do not think we dare doubt its nature. It is altered blood. The vomiting of this occurs at very irregular intervals, sometimes every week, and sometimes only once a month. She says that this peculiar vomiting occurred even before she came to the hospital. This, then, is her history so far as subjective symptoms are concerned.

On her admission we were impressed by her extreme pallor, and therefore frequently examined the abdomen for a tumor. She was also carefully examined for uterine cancer, but none was found, and there is no other disease of the womb. In the absence of anything distinctive in the symptoms, leukhæmia suggested itself, and I had the blood examined by Dr. William E. Hughes, who reports that he found in a cubic millimetre of blood 1,999,000 red corpuscles, and 15,000 white corpuscles—one white to about 133 red. The red corpuscles were also small, but the disproportion between the two kinds was not considered sufficient to justify a diagnosis of leukhæmia.

About the middle of November the looked-for aid to diagnosis presented itself—a tumor. This is now much more distinct than it was then. Even at a considerable distance you can see an elevation of the triangular space included between the lower border of the ribs and a line drawn from the angle of this border on the right side, through the umbilicus almost to the superior spinous process of the ilium on the left. In addition to this diffuse swelling there is a distinct tumor, nearly circular in outline and about two and a half inches in diameter, just to the left of the umbilicus; that is, a line drawn vertically through the umbilicus bounds the right edge of the tumor as a tangent does a circle, the mass of the tumor being to the left. I should have stated earlier that soon after admission, that is, about October 1st, there was not only tenderness in this region, but she also complained of pain independent of pressure, although no tumor was detected until a month later.

Let me briefly recapitulate the symptoms:

An intensely anæmic woman has suffered for some time from gastric symptoms, these symptoms being almost constant acid dyspepsia and a disposition to vomit, the vomiting occurring at irregular intervals and with no definite relation to the meals. Occasionally there has been vomiting of altered blood. There is a circumscribed tumor to the left of the umbilicus. The question as to what is the matter, is immediately answered by the suspicion, that it is a case of cancer of the stomach. There are, however, some doubts upon this point, and it is partly for the purpose of trying to determine this question that I brought her before you to-day. While many of the symptoms of cancer of the stomach are present, some of the most distinctive are wanting. One of these is obstruction of the pylorus. There is no symptom of obstruction at this situation. In the vast majority of cases of cancer of the stomach, the pylorus is the point affected—in fact, the pyloric orifice of the stomach is, next to the uterus, the most frequent seat of carcinoma. There may of course be cancer of the cardiac orifice with obstruction, but under such circumstances the food is regurgitated immediately after ingestion and little altered. On the other hand, when the obstruction is at the pylorus, the vomiting comes on a couple of hours or even longer after a meal. It may not occur for several days after

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the food has been taken, but the longer the interval the greater the amount vomited. This is owing to the fact that the stomach becomes gradually dilated, and the longer the case lasts the less frequent is the vomiting. I recall an instance of cancer of the pylorus, in which this was particularly marked. In this patient the vomiting was sometimes at intervals of ten days, and then a bucketful was ejected. At the autopsy, there was found cancer of the pylorus with great dilatation of the stomach, from which I removed at the time of the post-mortem examination over a gallon of fluid. In the present case there has been nothing of this kind.

Let me again refer to the situation of the tumor, which lies to the left of the umbilicus. This, is, however, not inconsistent with the view that there is cancer of the pylorus. I have several times called attention to this fact. If you examine the books, you will find that they state that the most frequent situation of the tumor in cancer of the pylorus is in the epigastric region, a little to the right of the median line, and below the free border of the ribs. I do not know how many cases of this disease I have seen, but in at least half a dozen the tumor was exactly in the position occupied by the mass in this case. In the patient with the enormous dilatation just alluded to, the tumor was in the same situation, but a little to the right. At present, I recall no case in which the tumor has not been in the umbilical region. The situation of the pylorus in health cannot be said to be fixed, but it is probably most frequently to the right of the median line, and a couple of inches below the ribs. I cannot but think that writers have been misled by this normal position, to expect that a tumor of the pylorus is always found in the same place. But it must be remembered that the tumor soon acquires weight, and that the stomach is easily displaced; to such displacement dilatation often contributes. Apart from this, if you examine the position of the pylorus after death, in cases where there has been no disease of the stomach, you will find that it is not constant, and that it is as frequently to the left of the median line as to the right. So that, although we find the tumor in this position, we have in this fact nothing to diminish the probability of this disease being cancer of the pylorus; the strongest point against cancer of the pylorus being the fact that there is no obstruction.

What else could it be? The most likely disease after cancer of the stomach, would be cancer of the pancreas. I have seen two or three cases of cancer of this organ, in which the tumor occupied this situation. In a case which I had a year ago, there was a tumor in precisely this situation. The autopsy proved it to be cancer of the pancreas, as had been suspected before death. Is there anything which will help us in this dilemma? In the first place, in a large proportion of cases of cancer of the pancreas, there is jaundice; there is no jaundice in our patient. Again, in cancer of the pancreas there are symptoms of indigestion, which resemble those present in this patient more than they do those of typical cancer of the stomach, excepting the vomiting of blood, which does not occur in pancreatic cancer. In the latter there is a tendency to diarrhœa, and frequently the liquid stools contain fat; sometimes this is very manifest. In the case to which I have just alluded, the diagnosis was made from the presence of indigestion with irregular vomiting, and the characteristic condition of the stools. By the use of opium, bismuth, etc., the diarrhœa is checked for a time, but in a few days the liquid discharges seem to burst through a barrier which held them temporarily in check. In the patient before you to-day, there is but one of these symptoms, *i. e.*, indigestion. The stools have been carefully examined, but no fatty matter has been found; neither is there any diarrhœa. There is on the other hand, some constipation, although it is not as marked as in cancer of the pylorus with obstruction. Balancing these facts, therefore, the probabilities are in favor of the presence of cancer of the pylorus, notwithstanding the absence of the most valuable symptoms of obstruction.

Cancer involving other portions of the stomach does not produce a circumscribed tumor such as we have here. The cancers affecting the greater and lesser curvatures are diffuse growths and soft cancers, whereas those at the pylorus are circumscribed tumors and epithelial or schirrous cancers in nature.

The question of *treatment* is an important one. For although it is impossible to do anything to remove the growth, we should not, at the same time, be apathetic in the matter, and I am quite sure that a good deal more can be done than is commonly thought possible. As a rule, the food taken into the stomach is sooner or later rejected; but this is partly because the stomach is disqualified to prepare it; to reduce it, by digestion, to the liquid state it must have to enable it to pass through the pylorus. Now if we can digest the food partially or altogether, before it is put into the stomach, we obviate this difficulty. Still better will we accomplish our purpose if we can introduce it partially or wholly digested into the rectum.

The stomach has no use outside of the preparation of the food for digestion. It is not a vital organ in the sense that the heart and the lungs are vital organs. It is important so far as it prepares the food, but if the food can be prepared for absorption outside of the body, its necessity is diminished, as it also is, if we introduce this artificially digested food into the rectum. Or we may use both of these methods. We can, by the use of prepared food, diminish the labor of the stomach, and by using the prepared food by the rectum, we can relieve the stomach of all labor. This is being done of late by peptonized foods of various kinds. The food may be prepared by the *extractum pancreatis*, which is now made by a number of pharmacists. Three to five grains of the extract added to a pint of milk and placed at a temperature of 100°, will in one hour peptonize all the casein. A curd is first produced, which subsequently undergoes digestion. The addition of rennet will then not produce coagulation. Milk thus prepared makes little demand upon the stomach for digestion, and it can be introduced by the rectum with good effect. The peptonized milk has a peculiar bitter taste, and unless this bitterness is present the digestion is unaccomplished. The digestion will take place at a lower temperature than 100°, but it takes longer.[1]

I have had very satisfactory results from another method of preparing the food for use by enema, the only objection to it is that it is a little troublesome. I saw it suggested in 1876, but by whom I cannot now recall, and I have since frequently used it when the patient is to be maintained solely by enema. The plan is to take from one and a half to two pounds of beef with the fat removed, and from one-half to one pound of fresh pancreas. The pancreas is finely chopped and afterwards bruised in a mortar with tepid water at

[1] The following method, slightly modified from that usually recommended, after numerous trials by patients, has been found most satisfactory: Take one pint of skimmed milk, to which add one gill of water. Heat to 140° F. (a temperature at which the finger can be immersed for half a minute). After taking from the fire, stir in three grains of powdered pancreatine and fifteen grains carbonate of sodium. Place in a covered kettle or jug and roll up in a cosey (an ordinary gossamer water-proof coat answers admirably well), near a stove or register to keep warm. Let it remain thus for an hour and a half; it then resembles slightly thickened milk, but there is no curd. Pour it into a covered pitcher and set aside to cool in the open air. Thus prepared, it has the slightest perceptible tinge of bitterness, and is very palatable.

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a temperature of 100°. It is then strained through a cloth. The juice thus obtained is intimately mixed with the meat, which has previously been chopped into small pieces. The product is next allowed to stand at a temperature of 100° for two hours; it is then ready for use. This amount suffices for two daily injections. The preparation decomposes very quickly, so that it has to be made fresh every day. I was surprised at what I accomplished by this method. In the man with the dilated stomach to whom I have referred, nothing could pass the pylorus, but during the use of daily enemata there occurred each morning an evacuation from the bowel as natural as though the patient were living on a mixed diet and digesting it properly. The extract of pancreas will probably answer as well as the method which I have described, but I have not had any experience with it.

In this connection, I want to call your attention to a little book by Dr. William Roberts, *On the Digestive Ferments, and the Preparation and Use of Artificially Digested Food.* After an account of normal digestion, he gives a description of the methods of preparing food by the use of these ferments. The method which I have just given you is not contained in this book.

The use of peptonized food is advantageous in many diseases, and especially in the diseases of children. Most cases of diarrhœa in children are due to indigestion, but by means of the extract of pancreas, we have the power to prepare the food for absorption thus lessening the labor of the stomach. The so-called *liquor pancreaticus* may be used for the same purpose, but I have had more experience with the extract.

By using this method of alimentation we can, in cancer of the stomach, prolong the life of the patient and make his condition less burdensome. But it occasionally happens that rectal alimentation does not appease the sense of hunger; and I have had patients who, in spite of all injunctions to the contrary, and who, knowing themselves that they would sooner or later reject it, would take food by the mouth.

It has been proven, over and over, that life can be sustained in this way. Not only have dogs been kept alive for months by rectal alimentation, but the same thing has been done with men. But where it is possible, the stomach should be made use of to some extent, and thus save the rectum.

ORIGINAL ARTICLES.

OBSERVATIONS ON OCCLUSION OF THE POSTERIOR NARES AS A RESULT OF NASAL CATARRH.

By ALEXANDER W. MacCOY. M.D.,
MEMBER OF THE PHILADELPHIA LARYNGOLOGICAL SOCIETY.

(*Read before the Philadelphia Laryngological Society.*)

So much has already been written during the past few years concerning the pathology and treatment of chronic nasal catarrh, that it is with no little hesitancy I offer my contribution to its study.

I should scarcely have an apology for offering this paper, were I less convinced that a new era had arrived in the successful management of what was, and, by some, is yet considered an incurable disease. The spirit of incredulity has so completely possessed the minds of many, that any one professing to cure chronic nasal catarrh runs the risk of being considered an enthusiast.

In our humid and variable climate, affections of the nasal mucous membrane are all but universal. In some cases of nasal catarrh, but little appreciable ill-effect results; in others, the progress is steadily onward from year to year, to one certain end—nasal occlusion, partial or complete. Between the beginning and the result, in these latter cases, there is a period of discharge of muco-purulent or serous secretion, which increases with each acute exacerbation during the winter and spring, but lessens considerably during the summer, and in some cases is almost absent.

The course of chronic nasal catarrh of the *hypertrophic* variety (of which variety alone I wish to speak in this paper) is undoubtedly of long duration, extending over many years, and in many persons appears to have been the companion of their lives.

After considerable observation, I am of the opinion that no hypertrophic condition of the nasal mucous tract arises in any case except from a long-continued and persistent coryza. Hypertrophic change cannot be present without previous inflammation: the hypertrophic tissue is the *result* of the persistent irritation—the *effect* of an ever-active *cause.*

Only during the last few years has the rapid development taken place in our knowledge of diseases of the nasal cavities.

To native investigators we are indebted for much of the advance in pathology and treatment, and, as a clearer understanding of the true anatomy of the parts has obtained, the pathology has become so clearly established, that the mind has no alternative but to accept it.

The *peculiar* anatomical characteristics present in the mucous membrane lining certain portions of the nasal cavities, were prominently pointed out by Kölliker and by Kohlrausch twenty-nine years ago, who described, in the sub-mucous layer, what they termed venous channels, great in size and very numerous—out of all proportion to what were known to exist in other mucous tissue. Kohlrausch's discovery was not attended by any practical results, because this anatomical knowledge was far in advance of his time, particularly as to its bearing upon nasal catarrh.

Twenty years after Kohlrausch had made his observations, Dr. Bigelow, of Boston, made a much more elaborate and successful study of this peculiar anatomy. While Dr. Bigelow's observations confirmed those of Kohlrausch, as to the enormous venous channels in the sub-mucous layer of the nasal cavities, he also proved that these sinuses constituted a true erectile tissue, such as is most clearly observed in the corpora cavernosa, capable of dilation and contraction.

Bigelow's investigations have been repeatedly confirmed by observers in recent years. To these later observations are we indebted for refreshing our memory concerning this unique structure, and most of all, concerning the practical bearing which this information has had in building up so clear a pathology.

If, then, we keep a clear understanding of the anatomy of the mucous membrane lining the nasal cavities, the conditions found in hypertrophic disease are readily understood.

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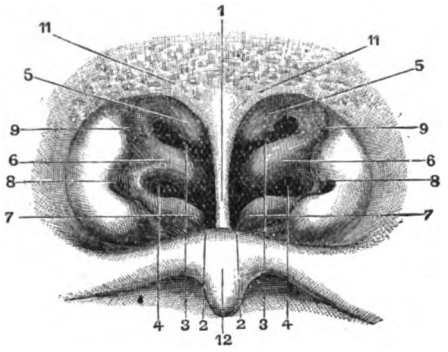
In examining cases of long-standing nasal catarrh, we are almost certain to find hypertrophic changes most clearly defined in those portions where the erectile tissue is most abundant—over the turbinated bones and the vomer.

It is my purpose to limit these observations to that portion of the nasal tract visible in the rhinoscopic mirror, viz., the posterior nares.

If we examine the image of a normal posterior naris, as seen in the rhinoscopic mirror, we will observe a picture somewhat resembling Fig. 1.

FIG. 1.[1]

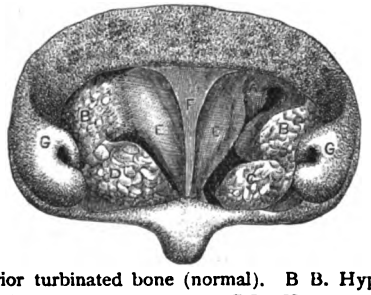


Rhinoscopic image of normal posterior nares. (Seiler.)

1. Vomer. 2. Free nasal passage. 3. Superior meatus. 4. Middle meatus. 5. Superior turbinated bone. 6 Middle turbinated bone. 7. Inferior turbinated bone. 8. Orifice of Eustachian tube.

In these openings are seen the posterior ends of the lower and middle turbinated bones, slightly scrolled and slanting, with their mucous covering; occasionally we get a view of a portion of the superior turbinated bone. Dividing these two openings we see the posterior portion of the vomer, wedge-shaped, with clearly defined surface gradually tapering to a narrow edge, as it joins the floor of the nose. Considerable spaces are observed between these turbinated bones, and between them and the vomer.

FIG. 2.



A. Superior turbinated bone (normal). B B. Hypertrophied tissue over middle turbinated bones. C D. Hypertrophied tissue over lower turbinated bones. E E. Hypertrophied tissue over vomer. F. Free surface of vomer. G G. Eustachian tubes.

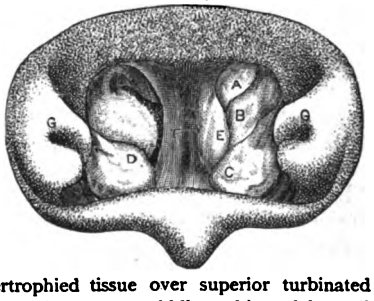
If we now contrast this picture of the normal posterior nares with one such as is sometimes observed in cases of long-standing nasal discharge, a marked change will be noticed.

[1] This cut was kindly loaned by Dr. Seiler, taken from the second edition of his Handbook.

Fig. 2 illustrates what is often seen in the rhinoscopic mirror in a case of nasal catarrh of long duration.

CASE I.—The patient from whom this drawing was taken was a man twenty-six years of age, of good parentage and of fair health. His history showed that he had always been easily affected by atmospheric changes, and that the nasal tract suffered most from these changes. For twelve years he remembered having a discharge from his nostrils, which, however, gave him but little concern. During the summer solstice the discharge was much lessened. Respiration had always been good, according to his statement, and at no time was mouth-breathing necessary; no attacks of asthma had ever occurred. For some years constant efforts to clear his throat have annoyed him. The post-nasal discharge was greatest when he became excited, and during the early part of the day. The secretion from the posterior nares was viscid and difficult of removal. Rhinoscopic examination revealed the conditions as seen in Fig. 2. Enormous hypertrophy of the soft tissues over the vomer on each side, extending its entire length; much greater above than below. The posterior end of the lower turbinated bone greatly hypertrophied on the right side, less on the left side; diffused thickening of the posterior end of the middle turbinated bone on right side. An hypertrophy resembling a collar projecting from the outer wall of left posterior opening, on a line with the middle turbinated bone, and springing from its outer portion. It will be noticed that on the right side, the spaces belonging to the posterior opening are so encroached upon by the hypertrophies that nothing but a mere fissure remains unoccupied; so that, practically, the right posterior naris is occluded, and can afford but little facility for the passage of atmospheric air during

FIG. 3.



A. Hypertrophied tissue over superior turbinated bone. B. Hypertrophied tissue over middle turbinated bone (left). C D. Hypertrophied tissue over lower turbinated bones. E. Hypertrophied tissue over vomer, left side. F. Enormous swelling of the free surface of the vomer. G G. Eustachian tubes. Right middle turbinated bone shows diffused thickening.

respiration. The left opening is less encroached upon, sufficient air appearing to pass through for respiratory purposes.

CASE II.—Is faithfully represented in the drawing, Fig. 3, which shows the same hypertrophic changes, with modifications, as are seen in Case I.

A. H. L., æt. 36, native, married, has enjoyed remarkably good health all his life; belongs to a

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wonderfully hardy stock, his father having died at a great age.

Fifteen years ago he first contracted an acute coryza, while exposed to very inclement weather. This coryza, which was severe in its onset, continued without abatement for fourteen years.

From the beginning of the attack he gradually grew worse, until, after years of annoyance, he was compelled to seek relief for the persistent and profuse nasal discharge. After many months of treatment, with but little mitigation of his disease, he abandoned all further medication, and resigned himself to his condition. For a number of years he endured his misfortune, continuing to grow worse. In the winter of 1881, he was compelled again to seek medical advice, when he came under my care. His condition was as follows: Profuse serous discharge[1] from both nostrils, which required the use of *five dozen* large handkerchiefs per week; the almost constant use of handkerchiefs was necessary, so persistent and so profuse was the discharge. Respiration was entirely obstructed on the left side; the right side allowed a small quantity of air to pass through it, but not sufficient for respiration, which had to be carried on through the mouth. Extraordinary attacks of sneezing[2] often supervened, lasting for hours. These attacks of sneezing left him exhausted, and frequently occupied hours which were necessary for rest. In addition to this his nights were broken by repeated attacks of asthma, rendering it necessary for him to seek an open window for freer respiration. Attacks of intense itching in the ear occasionally occurred. Thick tenacious mucus escaped from his post-nasal cavity, causing gagging, with oft-repeated hawking to dislodge it.

His voice was flat and nasal in character. With such a combination of distressing symptoms the patient's condition was deplorable.

Rhinoscopic examination was rendered extremely difficult, by reason of great irritability of the fauces, and the soft palate was unmanageable from the patient's inability to breathe through the nose. After repeated efforts had been made, and an unlimited amount of patience had been expended, a satisfactory view of the posterior nares was obtained.

The appearance was unique in several particulars; marked hypertrophic conditions of the soft tissues over *all* the turbinated bones of the left side were seen; the same conditions were present on the right side over the lower and middle turbinated bones. The vomer was greatly hypertrophied on the left side. A most peculiar condition of the vomer was manifest, which I have never seen in any other case. In place of the wedge-shaped vomer, with the hypertrophy some distance within its free margin (as is seen in Fig. 2, and as is usually noticed), there was an entire change in the shape of the vomer, its normal outline being lost in an enormous infiltration, which extended upon all sides; the lower portion, where it joins the floor of the nose, was increased so much that it appeared of the same breadth as above, while the infiltration was flush with the free surface of the vomer. This swollen tissue was regarded as an infiltration or congestion, caused from obstructed circulation, which was produced by pressure of the hypertrophies conjoined with the effect of an ever-existing rarefaction in the post-nasal space. Another most remarkable condition present in this case was an undoubted hypertrophy of the *superior* turbinated bone on the left side. The possibility of such a condition has been denied by very excellent observers, and to me was of so great interest that I made repeated examinations, lest an error in observation should occur. That this condition was present is indisputable. It is faithfully given in the illustration (Fig. 3).

The treatment of these two cases was in the main alike. As has been shown, the same pathological conditions existed in both. The treatment was essentially *surgical*. In my judgment, *successful* treatment in hypertrophic nasal catarrh can be no other than *surgical*. Whatever treatment of a non-surgical character may be instituted, it can be considered as but an adjunct, and secondary to the demands of these cases. I believe that treatment consisting of the usual medicinal remedies, applied in whatever manner elected, is futile for the *cure* of hypertrophic catarrh, and does, at best, but temporarily relieve the distressing symptoms of cases where the hypertrophic change has progressed but little. But in cases of marked degree, even where respiration can be normally carried on through the nose, any other method than prompt removal of all this redundant tissue is an illogical and irrational procedure. The treatment carried out can be well illustrated by way of example (Case II., Fig. 3). The nose in this case was extremely sensitive, and intolerant of manipulation. At each sitting, every attempt for many times was rendered but partially successful on account of prolonged attacks of sneezing, very often brought about by the introduction of the nasal speculum. All instrumental manipulation had to be done with the greatest delicacy and rapidity. As soon as an attack of sneezing supervened, all work for that time had to be suspended. After repeated sittings, the lower hypertrophy on the right side was engaged in the loop of Jarvis' snare and removed. This gave considerable relief to respiration on that side. The left side offered prolonged resistance posteriorly to the introduction of the snare, because of the impaction

FIG. 4.

of the hypertrophies in that orifice. After many fruitless endeavors, a passage for the wire loop was made, and the middle hypertrophy was removed, then the one over the vomer, then the lower one. Fig. 4 shows two views of the hypertrophy after removal from the lower turbinated bone.

[1] The serous discharge was greatly augmented by the presence of nasal polypi anteriorly.

[2] Partly dependent on the nasal polypi.

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This made a marked change of the infiltrated vomer, which rapidly regained its normal shape and outline. As soon as the obstruction to the circulation had been relieved (by the removal of the hypertrophies), the hypertrophy on the superior bone decreased in size, and did not require any interference with the snare. After the removal of all these obstructions, the breathing through the nose became free, mouth breathing was no longer required; the attacks of sneezing subsided, and asthmatic seizures were banished. His voice became resonant and normal. After the snare had done its work, the galvano-cautery was employed to remove what general hypertrophic condition remained, to which the snare was not applicable. The amount of discharge gradually grew less during treatment, and finally became so little that a handkerchief was no longer a necessity. In cases of so marked degree as the above, I know of no method of treatment which would give such good results as were obtained in these cases by the use of Jarvis' snare, and the galvano-cautery.

The successful management of cases of hypertrophy of the tissues over the vomer *posteriorly* has always been considered difficult, because of the situation; but in the galvano-cautery we have a remedy which renders the treatment easy and successful, and all other procedures appear cumbersome and inefficient in comparison. In a few sittings a marked hypertrophy of the vomer, and the train of unpleasant symptoms attached to this condition, can be made to disappear. In my experience, no ill-effect has ever occurred. I have yet the first untoward complication to report.

To avoid secondary disturbances there are certain requisites, viz.: 1. A battery in perfect condition. 2. A very thin cautery knife. 3. Perfect adjustment to the part to be destroyed. 4. Contact of but a few seconds. 5. Thorough application of an antiseptic fluid to the parts cauterized.

LITHOTOMY AND LITHOTRITY IN THE MEDICAL MISSIONARY SOCIETY'S HOSPITAL, CANTON, CHINA, IN 1882.

BY J. G. KERR, M.D.,
OF CANTON, CHINA.

THE annexed tables present, in as condensed a form as possible, the operations for urinary calculus performed during one year.

Lithotomy in the Medical Missionary Society's Hospital, Canton, China, in 1882.

No.	Age.	Residence.	Occupation.	Duration.	Date of Operation.	Chemical Composition.	Diameter. In. In.	Weight. Oz. Dr. Sc.	Result.	Remarks.
1	38	Tsang-shing.	Farmer.	years.	January 2.	Urates.	2¼ x 1⅜	2 ½ 0	Recovery.	
2	6	Pun-yii.		3 "	" 18.	"	1½ x 1	1¼ 0	"	
3	8	Tung-kun.		1½ "	March 10.	"	1⅜ x ½	0 2	"	Two small calculi.
4	10	Tsing-iin.		2 "	" 14.	"	1⅜ x ⅝	1 ½	"	Two calculi.
5	14	Piin-yii.		10 "	" 14.	"	2⅛ x 1⅜	2 0 ½	"	
6	10	Heun-shan.		5 "	" 19.	"		1	"	Small stone. Median section.
7	13	San-ui.		6 "	" 28.	"	2¾ x 1⅜	1 7 0	Died.	On second day. A very bad case.
8	22	Tsang-shing.	Farmer.	8 "	April 18.	"	1½ x ⅞	4 1	Recovery.	
9	10	San-ui.		2 "	May 29.	"	1⅜ x ⅞	5 2	"	
10	30	Hoi-ping.	Farmer.	6 "	" 29.	"	1½ x 1⅜	4 ½	"	
11	6	Ko-iu.		3 "	" 30.	"	1½ x ⅝	2 0	"	Two calculi.
12	18	Hok-shan.	Laborer.	10 "	" 30.	"	1¼ x 1⅜	1 0 1	"	
13	13	Nam-hoi.		8 "	June 8.	"	1¼ x ⅞	6 2	"	Two calculi.
14	7	Sam-shui.		4 "	" 8.	"	1¼ x ½	1 2	"	Two calculi.
15	33	Hoi-ping.	Farmer.	2 "	" 10.	"	2⅛ x 1½	2 5 2	"	
16	6	Tsing-iin.		3 "	" 13.	"	⅞ x ½	1 1	"	
17	25	Pun-yii.	Trader.	5 "	" 22.	"	2¼ x 1½	2 1 0	Died.	On eighteenth day.
18	7	Wai-chau.		4 "	July 4.	"	1 x ½	2 0	Recovery.	
19	55	Tung-kun.	Farmer.	3 "	" 8.	"	1¾ x 1	7 1	"	Crushed twice before cutting.
20	27	San-ui.	"	2 "	" 8.	"	1⅜ x 1¼	1 1 ½	"	Cut two years ago.
21	31	Tsang-shing.	"	1 "	" 9.	"		5	?	Taken home in a dangerous state from fever.
22	10	Pun-yii.		2 "	" 20.	"	1¾ x ⅞	3 1	Recovery.	
23	16	Hoi-ping.		11 "	August 3.	"	1½ x ⅞	4 2	"	
24	5	Pun-yii.		1 "	" 7.	"	1⅛ x ⅝	2 0	"	
25	11	Ko-iu.		1½ "	" 28.	"	1⅛ x ⅝	3 0	"	Two calculi.
26	13	Fa-iin.		5 "	Sept. 13.	"	1¼ x ¾	3 ½	"	Patient a female.
27	7	"		4 "	" 23.	"	1 x ⅞	2 1	"	
28	5	Pun-yii.		1 "	" 26.	"	1¼ x 1	5 ½	"	
29	15	Tung-kun.		1 "	" 28.	"	1 x ⅝	1 1½	"	
30	7	Nam-hoi.		2 "	" 28.	"	1⅛ x ⅝	2 1	"	
31	28	Fa-iin.	Farmer.	20 "	October 3.	"		1 1 0	"	Thirty calculi in sac, and one in cavity of bladder.
32	33	Kwong-sai.	Trader.	5 "	" 8.	"	1½ x 1½	7 1	"	Had severe hemorrhage.
33	8	Ko-iu.		1½ "	" 12.	"	1⅛ x ⅞	4 1	"	
34	6	Shan-tah.		1 "	" 12.	"	1½ x ⅞	2 2	"	
35	14	San-ui.		12 "	" 23.	"	1¾ x 1⅜	5 0	"	
36	41	"	Farmer.	2 "	" 23.	"	2 x 1⅜	1 6 0	"	Secondary hemorrhage twice.
37	35	"	Laborer.	2 "	" 25.	"	1½ x 1⅛	4 2	"	
38	39	"	"	1½ "	" 25.	"	1½ x 1⅜	7 2	"	
39	27	"	Trader.	20 "	" 25.	"	3⅛ x 2	6 0 ½	"	Bilateral.
40	28	Fa-iin.	"	7 "	Nov. 2.	Triple phos.	1⅜ x 1⅛	5 0	"	
41	25	Shau-tak.	"	4 "	" 9.	Urates.	1⅞ x 1⅜	5 2	"	
42	48	Fa-iin.	"	3 "	" 14.	"		1 5 0	"	
43	11	San-ui.		3 "	" 16.	"	1⅛ x ⅞	2 ½	"	
44	34	Shiu-hing.	Farmer.	3 "	" 18.	"	2¼ x 1⅜	2 1 1	"	
45	12	Ko-ming.		3 "	" 23.	"	1¼ x ⅞	2 1½	"	
46	7	Nam-hoi.		3 "	" 28.	"	1⅛ x ¾	3 ¼	"	Two calculi of equal size.
00					August 11.	"	1 x ⅞	1 1		This stone was in a urinary fistule.

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Lithotrity in the Medical Missionary Society's Hospital, Canton, China, in 1882.

No.	Age.	Residence.	Occupation.	Duration.	Date of Operation.	No. of Sittings.	Chemical Composition.	Weight. Oz.	Dr.	Sc.	Result.	Remarks.
1	39	Sz-ui.	Farmer.	4 months.	January 18.	3	Urates.	1	0		Recovery.	
2	26	Tung-kun.	"	6 "	March 11.	4	"	3	2		"	
3	46	Pun-yii.	"	4 years.	" 16.	2	"	1	0		"	
4	34	Tsang-shing.	"	1 "	" 29.	9	"	5	0		"	
5	29	Shun-tak.	"	2 "	" 29.	4	"	2	1		"	
6	44	Ko-iu.	Trader.	10 months.	May 18.	2	"	1	2		"	Bigelow's.
7	47	Tsang-shing.	"	10 "	" 23.	1	"	1	0		"	
8	56	"	Farmer.	3 years.	June 6.	3	"	5	1½		"	
9	59	Tung-kun.	"	2 "	" 3.	2	"		2		"	
10	26	"	"	6 months.	" 27.	1	"			2½	"	
11	34	Fa-iin.	"	1 year.	July 19.	2	"	1		½	"	
12	64	Nam-hoi.	Trader.	3½ "	" 19.	4	"	1	0		"	
13	58	Shun-tak.	"	10 months.	August 3.	2						Unfinished. Probable death.
14	26	Tung-kun.	"	1 year.	" 7.	5	Urates.	1	0		Recovery.	
15	29	Sam-shui.	Laborer.	2 "	Sept. 7.	1	"	1	1		"	Bigelow's.
16	38	Nam-hoi.	Farmer.	1 "	" 9.	1	"	1	2		"	Bigelow's.
17	23	Tsung-fa.	"	1 "	" 9.	1	"		1		"	
18	65	Pun-yii.	"	1 "	" 23.	2						Unfinished. Almost relieved.
19	40	Fa-iin.	"	3 "	Oct. 18.	2	Urates.		2		Recovery.	Crushed one year ago.
20	61	Pun-yii.	"	2 "	" 31.	3	"	3		½	"	Bigelow's.
21	30	Hok-shau.	"	2 "	Nov. 2.	2	"	6	0		"	Bigelow's, twice.
22	46	Nam-hoi.	"	6 months.	" 14.	1	"	1			"	
23	36	Tsang-shing.	"	1 year.	Dec. 22.	1	"					Bigelow's.

It is to be remarked that in the population which furnishes these cases, bad hygienic conditions prevail, as is indicated by the fact that every boy operated on had to be treated for worms previous to the operation.

The season has not been a healthy one. Cholera, and a malignant form of fever prevailed during the autumn months; a few cases of both forms of disease occurred in the wards of the hospital. The fever, however, has not been violent in the city, but in some country districts it has been very fatal.

Chinese physicians never attempt to detect the presence of a calculus by sounding; and they have no instrument, either catheter or sound, by which it might be done. All the cases must therefore come to this hospital for the first examination, except a few who meet with pupils that have had some training here. Many patients spend years of suffering, before they know the nature of their disease, or of the existence of the hospital, where relief can be obtained. Large stones and all manner of complications are therefore met with, and many of them are not desirable cases to deal with.

Preparatory treatment is indispensable in most cases, and it is especially necessary to make a change of diet. The usual food of the country people is fish, fresh and salted; with salted vegetables.

For this fresh meat, eggs and fresh vegetables are substituted, the staple food, rice, being allowed. With this regulation of the diet, and an occasional purgative or laxative, the digestive functions are got into healthy action, and if possible, all cystitis removed. Under such conditions, and with no complication in other organs, an operation for stone should always be successful.

In reference to the choice of operation, the lateral is performed in nearly all the cases of lithotomy. The median section has been used in two or three cases, where the stone was small, or where it became necessary to cut after crushing. The bilateral has been used in only one case, No. 39, because of the unusual size of the stone. The particular form of the incision, has in my opinion very little to do with the result of the operation; other factors combining to decide the fate of the patient.

Lithotrity is preferred in suitable cases, and in such as for some reason the knife is excluded. The Chinese are physically a smaller race than Europeans, and the urethra is too small in many cases, especially for Bigelow's evacuating tubes. These have been used in several cases with satisfactory results, but in the former part of the year the apparatus was not in working order. In one case with albuminous urine lithotrity was successful, when the use of the knife would doubtless have been fatal.

In most of the cases there was nothing worthy of remark but a few had features of interest, which may be mentioned. In eight of the lithotomy cases multiple calculi were found, the number being two in each of seven cases. No. 31 was remarkable in having one stone in the cavity of the bladder and thirty calculi in a sac. The sac was located just below the neck of the bladder, behind the prostate, and the incision opened into it. Examination per rectum gave the impression of one large stone, as was anticipated from the long period (20 years) during which the patient had suffered. The calculi varied in size from a bean to that of a chestnut, and were angular, with facets fitting accurately to each other, and as the sac fitted closely around them there could have been but very little motion. After the removal of all the calculi from the sac the single round stone was found in the cavity of the bladder.

One of the boys operated on was found, after being chloroformed, to have a urethra so small that no staff at hand would enter. A small sound was introduced, the incision in the perineum made down to it, and a grooved director passed into the bladder, on which the incision was completed.

In several of the cases severe hemorrhage followed lithotomy. For many years I have employed a tampon in the rectum as the means to control hem-

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orrhage, and, in nearly every case, with satisfactory results. Sometimes it is necessary to give manual assistance for a few hours by pressing the tampon against the os pubis, and thus more effectually closing the track of the wound. From six to eighteen hours is long enough to let the tampon remain. The centre of a square piece of cloth, well oiled, is pressed into the anus, and a roller bandage put in gradually until a sufficient amount of pressure is made on the wound. An anodyne may or may not be required to allay tenesmus.

The last case given in the lithotomy list, but not numbered, was a man whose perineum and scrotum were burrowed with urinary fistulæ, in one of which the stone had formed. He also had a calculus in the bladder, but was too weak to undergo the operation. This is the second case in which I have taken stone from urinary fistulæ.

Lithotomy case No. 26 was a female, and is only the third case in about 850 operated on in this hospital. During the year another woman was admitted in whom a calculus was detected, but she was not willing to submit to an operation.

The whole number of cases of urinary calculus under treatment during 1882 was 104. Of these 12 remained in the wards at the end of the year; 2 died before operation, and the remainder either declined to be operated on, or were unfit for an operation, or deferred it to another time.

In the following tables, *C* and *D*, the cases are arranged as to age in decennial periods.

C. Lithotomy.

	Operation.	Deaths.
Under 10 years	13	0
10 years and under 20	15	1
20 " " 30	7	1
30 " " 40	8	0
40 " " 50	2	0
50 " " 60	1	0
Total . . .	46	2

D. Lithotrity.

	Operations.	Deaths.
20 years and under 30	6	0
30 " " 40	6	0
40 " " 50	5	1
50 " " 60	3	1
60 " " 70	3	0
Total . . .	23	2

[I am happy to be able to present the preceding record of Dr. Kerr's cases, which came to me by letter in answer to an oft-repeated request. Any one who knows the amount of labor done by Dr. Kerr in the Canton Hospital and dispensaries every year, will understand why he so seldom contributes anything for publication, beyond what is prepared for his annual reports. Few operators have removed as many stones from the human bladder as he, and his success has been such, as to encourage him very much in operating upon the Chinese, not only for the removal of calculi, but of morbid growths of a much more serious nature.

Dr. Kerr has now performed lithotomy 449 times, and lithotrity upon 168 patients; making 617 cases from whom he has removed vesical calculi. The late Dr. Fun Wong, his native assistant, operated upon 34 cases: and Rev. Dr. Peter Parker, during his term of service, prior to that of Dr. Kerr, performed lithotomy 37 times. Besides these, there were many cases of removal of urethral calculi; and an almost incredible number of stones have been removed from beneath the prepuce, and constitute a collection unequalled in the world.

Some of the calculi removed by lithotomy in the Canton Hospital, were so large that they required first to be broken before extraction. Dr. Kerr removed one of 6 oz. 1 dr. from a man of forty-three; another of 5 oz., measuring 3 by 2 inches, from one of twenty-eight; and two stones 2¾ and 2 inches, and 2⅜ by 1¾, weighing together, 8 ounces, from one of thirty; all of whom recovered. Dr. Wong removed one of 3 by 2 inches, weighing 4 oz. 5 dr.: patient recovered. Some of the largest calculi have been very long and irregular in shape; others quite symmetrical and oviform. Occasionally patients have died in the hospital from cystic disease produced by a large calculus long existing in the bladder, having entered in a condition making an operation impossible. Dr. Parker removed a calculus from a patient after death, which was 3½ by 2 inches, very curiously irregular in shape, and bound down by adhesions. The man was twenty-one; had had the disease seven or eight years, and died on May 18, 1850. Dr. Parker was in charge of the work of the Medical Missionary Society for seventeen years, and Dr. Kerr succeeded him in May, 1855. With the exception of about three years, he has been in active work in China since this date. As a surgeon, his experience has been great and varied, and could be made of much value to the profession, had he the time to publish some of his rare and remarkable cases.

Dr. Whitney, of Foochow, writes me that he has a class of five Chinese medical students, and Dr. Dudgeon, of Pekin, is publishing Kirke's *Physiology*, in the classical Chinese.—R. P. HARRIS.]

MEDICAL PROGRESS.

THREE CASES OF GASTROSTOMY FOR CARCINOMATOUS STRICTURE OF THE ŒSOPHAGUS.—A. KNIE (*St. Petersburger med. Woch.*, 1883, No. 2) reports three cases in which an early operation was performed with complete success, although one case died thirty-six hours after the opening of the stomach from perforation of the carcinoma into the left bronchus. In the other two cases the patients recovered rapidly after the operation and increased in weight, although before they had been steadily loosing weight under nourishment by the rectum. One case carried on his ordinary work for six months after the operation, and then, after paralysis of his left arm, died eight months after the operation; the other case was still living one month after the operation. No obturator was employed in the fistula, a simple drainage-tube with stop-cock being used; no eczema or escape of fluid was noticed.—*Centralb. f. Chirurg.*, March 10, 1883.

RESORCIN IN SIMPLE CHANCRE IN FEMALES.—M.M. LEBLAND and FISSIAUX give the details of six cases treated with resorcin (metadioxy-benzine). It is a solid, colorless body, with feebly aromatic odor, and

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sweet, slightly bitter taste. Its solubility in water is 86: 100; also soluble in alcohol, ether, and glycerine. Exposure to light gives it a reddish-brown color. It coagulates solutions of albumen, and preserves them. It arrests fermentation and putrefaction in a remarkable manner. In solution of .50–1 to 100 it arrests the development of microphytes and microzoaires, and kills them. The adult easily takes ʒj–ʒjss in twenty-four hours. It is eliminated by the kidneys. It seems to be indicated in all cases in which carbolic acid is employed. In the cases referred to, the chancre was brushed over with a solution of resorcin, varying from a weak to a saturated ethereal solution. Rapid recovery resulted; two cases in twenty days, one in nineteen, two in twenty-six days, and one in twenty-seven. Resorcin, though as rapid a *cicatrisant* as iodoform, has none of its inconveniences.—*Ann. de Gynecol.*, Jan. 1883.

Explication of Metalloscopic Phenomena.—M. Burg has made an ingenious apparatus which enables us to record the successive modifications impressed upon the nervous system by metallic application. It consists of a scale, on which is a needle; above are written the normal sensibility and motility; below, anæsthesia and paresia; on each side, analgesia and amyasthenia. The spring which moves the needle is the nervous system. By the aid of his apparatus, M. Burg explains the phenomenon called *transfert*. This *transfert* he regards as the simple phenomenon of *balancement;* not that he wishes to create a new word, but because he thinks that the word expresses the idea better than *transfert*, which is doubly inconvenient, as implying an idea forced and difficult to believe—*à priori*, that metallic applications are useless in treatment.—*Le Progrès Méd.*, March 10, 1883.

Paralysis from Injections of Ether.—Dr. Arnozan has seen four cases in which paralysis followed deep subcutaneous injections of ether, and concludes: 1. That injection of ether into the muscles causes paralysis. 2. These paralyses are analagous to peripheric paralysis. They cause suppression or diminution of faradic excitability. 3. They pass away spontaneously, but very slowly.—*Revue de Thérap.*, March 15, 1883.

Gangrene of the Female Genital Organs in Typhus.—Petrone (*Ann. Univ. di Med. e Chirur.*, 1882, Hft. 11) gives the details of some cases, with reflections on the pathogenesis of this affection. In two cases it began with vulvar diphtheritis; in another with inflammation of Bartholini's glands and abscess formation. In Petrone's collected cases, the trouble appeared between the fifteenth and twenty-eighth day. In some the trouble was confined to the labia majora; in others, the vagina, or even the uterus, was affected. When the latter, two-thirds of the cases were fatal. In the remaining, there were narrowing or occlusion of the vagina, recto-vaginal fistulæ, etc. The treatment consists in the most scrupulous antiseptic precautions, tonics, nutritive food, etc.—*Centralbl. f. klin. Med.*, February 24, 1883.

Treatment of Granulations of the Conjunctiva and Cornea by Purulent Inoculation.—M. F. Terrier, having studied the pathological conditions of such treatment, after indicating the dangers, draws the following conclusions: 1. Inoculation is a good method for treating old conjunctival granulations with pannus. 2. It is indicated in complete, thick, pannus, ulcerations of the cornea; incomplete or wasting pannus contra-indicates inoculation. 3. It is justified in monocular pannus, granular or not. Inoculation must be made with pus of ophthalmia of new-born infants. 5. The ophthalmia produced should be healed methodically, injuries to the edges of the cornea being avoided. 6. Rational treatment, such as cauterizing with sulphate of copper or nitrate of silver, pomades of precipitated yellow oxide of mercury, insufflation of calomel powder, etc., is frequently necessary. 7. Exceptionally a new peritomy or iridectomy is indicated.—*Revue de Chirur.*, February 10, 1883.

Anthropometric Study from the Point of View of Fitness for Military Service.—Dr. Jansen reaches the following conclusions in regard to the expansion of the chest:

1. The weight of the body and the degree of expansion of the chest give the precise indications as to the state of vital resistance and aptitude for military service.

2. The thoracic circumference, taken between the two inspirations, gives no indication of real value.

3. The measurement of the chest should be taken above the nipples.

4. After having noted the chest measurement during the repose following a respiration, the tape should be kept around the chest, and a deep inspiration should be made; the difference in the measurements shows the amount of expansion.

5. The following may be given as means: Men fit for service; weight, 142 lbs.; weight, by half measure of height, about 14 oz.; chest measure, 34 inches; degree of expansibility, 1½ to 2 inches. Men unfit for service: weight, 112 lbs.; weight by half measure of height about 10 oz.; chest measure, 32 inches; degree of expansibility, less than one inch.

6. In many cases, men whose chest measure is less than half the height are perfectly suitable for service, and frequently men with large chests are unable to stand the fatigues of military service.

7. There is a constant relation between the bodily weight, the expansibility of the chest, and the height, but none between these and the chest measure.

8. Sailors, boatmen, blacksmiths, carpenters, and cultivators are most robust; weavers and colliers least robust.

10. Five feet one inch may be taken as the minimum height.

11. Recruits of good constitution had a mean weight of about 10 oz. by half measure of height; the degree of expansibility of their chests averaged one and one-fifth inch. The chest measure was not always half the stature, but never fell below 30 inches.

12. Militiamen of bad complexion cannot stand the fatigues of military service.—*Revue Internat. des Sciences*, February 15, 1883.

Extract of Guachamaca.—The *Guachamaca* is a tree growing in Venezuela; the active principle is contained in the bark and other parts of the tree. The extract, brown, resinous, resembling curare, is soluble in water, less so in absolute alcohol, and insoluble in ether and chloroform. The chief difference between its action and that of curare is, according to Schiffer (*Deutsche Med. Wochens.*, 1882, No. 28), that guachamaca rapidly affects the nerve centres, while that action of curare is slow. Schiffer's experiments on man have been few, and he has always administered it subcutaneously. In a case of spasmodic muscular contraction, he injected gr. ⅛ of the dry extract. In forty-five minutes a light sleep was produced, which lasted about three hours; the circulation and respiration remained normal, and reflex excitability was preserved during the sleep. Schiffer thinks that it may be used advantageously in convulsive disease, and that it will prove a useful hypnotic.—*Le Progrès Méd.*, March 17, 1883.

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CAUSE OF THE FIRST SOUND OF THE HEART.—DR. SPIRIDION KANELLIS (of Athens) has brought out a new theory of the production of the first sound of the heart, according to which the sole causes are: 1. The vibration of the tendinous cords and the friction produced by the blood; which, after a sufficiently great pressure, makes a noisy irruption through the network formed by these cords during the ventricular contraction. 2. The friction of the blood against the inequalities of the ventricular wall, which is at that moment contracted. This sound, says Dr. Kanellis, lasts until the ventricular systole.—*Revue Scientifique*, March 17, 1883.

ANÆSTHESIA BY GALVANIZATION OF THE SUPERIOR LARYNGEAL.—M. BROWN-SÉQUARD has shown that carbonic acid placed in contact with the laryngeal mucous membrane produces anæsthesia by excitation of the terminal filaments of the superior laryngeal nerve. Galvanization of the nerve-trunk itself generally produces only a slight diminution of sensibility; but in some recent experiments made on the dog, he has produced complete anæsthesia by this means.—*Le Progrès Méd.*, March 10, 1883.

NEPHRECTOMY.—Professor D' Autona, of Naples, on the 28th of December, 1882, successfully extirpated a pyonephritic kidney by the lumbar incision.

IODOFORM IN ITALY.—Semmola, Rummo, Ciaramelli, and Bufalini have prescribed iodoform in chronic affections of the respiratory passages. Semmola administers the drug by the stomach, believing that it is eliminated by the mucous membrane of the respiratory tract, as proved by the fact that the fever diminishes, and the cough becomes less fatiguing. Rummo employs iodoform in the form of a vapor by inhalation, and in spirit of turpentine in a four per cent. solution; he believes that the turpentine reduces the irritating properties of the iodoform. He claims that the cough and expectoration are reduced, the râles become less numerous, and the general condition improves.—*Gazette Médicale de Paris*, Feb. 24, 1883.

NEW FORMATION OF ARTICULAR HEADS OF BONES AFTER SUBCAPSULAR PERIOSTEAL RESECTIONS.—DR. BAJARDI has made a series of experiments on dogs three months old, always choosing as the region for his experiments the lower extremity of the femur. The results obtained by him differ in some respects from those obtained by Wagner and Ollier, but confirm the results arrived at from resections of human bones made by Lüelle, Doutrelepont, Heinemann, Czerny, Weichselbann, and Jagetho. Dr. Bajardi arrived at the following conclusions: 1. Resection of an articular extremity of a bone, practised on a young animal, is followed by an exact reproduction of the part, provided that the periosteum and articular capsule be kept intact, according to Larghe's method. 2. The articular extremity thus produced is composed of spongy tissue, and a greater or less extent of its surface is covered with an investing cartilage. 3. The bony and cartilaginous portions of the new articular extremity are developed partly from the diaphysis, partly from the marrow, and to a limited extent from the connective tissue which covers almost the whole of the bony portion of the excised epiphysis. 4. The new formation begins primarily in the marrow, in the form of embryonic connective tissue, which becomes rapidly transformed into cartilaginous and osseous tissue. 5. The periosteum of the diaphysis, and the connective tissue which covers the osseous portion of the apophysis, do not take part in the process of development until a later period. 6. The articular surfaces of the tibia and patella, when left intact, may or may not be very considerably modified, according to the reëstablishment, or not, of the original conditions of movement and reciprocal pressure. 7. These modifications consist in proliferation of the upper layer of cartilage cells, consequent on the peripheral cells becoming atrophied; in dissociation of the ground-substance (fibrous tissue), consequent on cellular proliferation and atrophy; and in transformation of cartilaginous tissue into fibrous tissue. 8. These modifications always commence in the superficial strata of the investing cartilage, and more or less slowly reach the lower or deeper strata.—*British Med. Journal*, March 17, 1883.

EXTIRPATION OF THE LARYNX.—G. BENDAUDI reports the case of a boy, aged 10 years, in whom Riggi opened the larynx in the median line with the galvanocaustic knife, intending to remove a large polypoid growth. On account of profuse hemorrhage from the tumor, extirpation of the entire larynx was resolved upon, which was successfully performed with a galvanocautery knife without hemorrhage. The edges of the œsophagus were sewed into the wound, and an ordinary tracheal canula inserted; a sound was permanently left in the œsophagus. The case progressed without any febrile reaction and the wound was completely healed in 28 days, without any deformity of the neck; deglutition was not interfered with.—*Centralb. f. Chirurg.*, November 11, 1882.

INJECTIONS OF CARBOLIC ACID IN SCIATICA.—M. SCHRUMPF has communicated the following to the *Société Médicale du Haut-Rhein* (June 11, 1882): Carbolic acid introduced into the cellular tissue in strong solution produces disorganization or suppuration. In weaker solutions, however, of one to three per cent., if the quantity injected does not exceed gr. iss, no accident will result; on the contrary, this treatment is not only palliative, but curative. The injection is soothing; in this respect being distinguished from those for which Luton sought to substitute simple water, morphine, chloroform, ether, alcohol, salt water, nitrate of silver, etc. As a rule, several injections are necessary to entirely relieve the pain. The usual quantity for injection is about one-third or one-half grain (the acid being dissolved in alcohol). Schrumpf has obtained excellent results in sciatica, lumbago, pleurodynia, coccygodynia, and cervico-brachial neuralgia. Idiopathic neuralgiæ alone seem favorably influenced by this treatment. Those caused by a medullary affection, or compression or an articular affection, or deep or superficial varices, are uninfluenced by these injections.—*Revue de Thérap.*, March 15, 1883.

PULMONARY SYPHILIS.—M. BRISSAUD has recently (*Le Progrès Médical*, No. 3, 1883) summed up our knowledge of this subject in a clear and concise manner. We may say at once that he deals only with acquired syphilis, and not with inherited. As in the case of the liver and other viscera, syphilis may give rise to two different lesions—one a fibroid change, mostly superficial, in fact, involving the pleura as much as the lung tissue proper; the other a gummatous change, almost always more or less deep seated, and often surrounding the large bronchi. These gummata are usually few in number, of firm consistence, a yellowish color, variable in size, somewhat drier than most morbid products. They are usually surrounded by a certain amount of fibroid change. The glands about the bronchi at the root of the lung become enlarged, caseate, and sometimes ulcerate into the bronchi. M. Brissaud is inclined to believe that this degeneration of the glands is, in the majority of in-

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stances, the primary lesion rather than a specific inflammation of the lung, and he points out that the disease is most common in the immediate neighborhood of the root of the lung. As regards diagnosis, the chief difficulty, of course, is to distinguish between a syphilitic and a tubercular lesion. They are equally destructive; they give rise to analogous symptoms, either inflammatory or congestive. But they differ in the part affected, and this is the most important diagnostic point. It has often been said that hæmoptysis is less frequent and less copious in syphilitic than in tubercular lung affections; but this is not a sign upon which any reliance can be placed. A last point, and a very important one, is that when a person has died of a syphilitic affection of the lungs it is almost certain that other evidence of syphilis will be found either in the kidneys, the bones, or the skin. M. Brissaud thinks that the reason these affections are not better known is because they yield so readily to the proper treatment.—*Med. Times and Gazette*, March 24, 1883.

Capsular Incision in Reduction of Hip-joint Dislocation.—This case occurred in the service of Dr. Polaillon, at La Pitié. A dorsum ilii dislocation was diagnosticated. Four separate attempts at reduction were made, under chloroform. By the first, the head of the femur was thrown into the thyroid foramen, from which subsequent attempts at reduction proved unavailing. Muscular reduction could not be attained under profound chloroformization. On the forty-sixth day after the accident, Polaillon reduced it by incising the capsular ligament and breaking up the adhesions. Minute antiseptic precautions were carried out, including drainage. Death followed on December 20, 1882, four days after the operation. The patient was alcoholic. At the autopsy, the lungs were found congested at the base; heart fatty; liver enlarged, fatty, and suppurative; kidneys yellowish and fatty. The head of the femur was found in the cotyloid cavity; round ligament ruptured. This is the third operation reported of the kind. The first, by Volkmann, in 1876 (*Berlin. klin. Wochensch.*, No. 25, p. 357, 1877); the second, by MacCormac, in 1878. In both, the head of the femur was resected. Recovery in both. Volkmann made a longitudinal incision, which extended from the crest of the ilium to the great trochanter. MacCormac made a Y-shaped incision, including a large part of that region. Polaillon made his incision from the anterior-inferior iliac spine, extending down the axis of the thigh about four or five inches. He does not attribute the death of his patient to the operation, but to his alcoholism and general bad condition.—*Bull. Gén. de Thérap.*, March 15, 1883.

Influence of Electric Light on the Eyes.—Prof. Mauthner, in a communication to *Allgemein. Wien. Med. Zeitung*, No. 10, March 6, 1883, says that in estimating the influence of the electric light on the eyes, three factors must be considered: 1. The constancy of the light. 2. Its brightness and illuminating power. 3. The color. As to the first point, the electric arc gives an inconstant or unsteady light, and is therefore injurious to the eyes. The illuminating power is too intense, and is on that account injurious; and, finally, the color is not purely white, and on this account also it may prove injurious.

The Arrest of Hemorrhage.—About eight months ago M. G. Hayem established, by a series of experiments, that the vulnerability of the hæmatoblasts played an important part in the arrest of hemorrhage. These experiments, made on the living animal—dogs—have been more carefully repeated on the horse, with the result of confirming the former deductions. *En résumé*, he found that the blood-clot attached to the wall of a vessel is formed at its base; that is, at its point of insertion or origin, by an accumulation of innumerable hæmatoblasts. He considers this a further proof in favor of the *rôle* played by these elements in the formation of certain intravascular coagulations and of the relation existing between the integrity of the wall of the vessels and the fluidity of the blood.—*Revue Scientifique*, March 17, 1883.

Action of Thymol on the Circulation.—Dr. Fiori has noted the influence of thymol in doses of grs. vij–℈iv, on the temperature, pulse, respiratory movements, and arterial pressure in sixteen subjects. Observations were made every fifteen minutes. Thymol produces a rapid fall of the temperature, and a marked diminution of the pulse in fever. In health the pulse was slowed. The sphygmograph showed augmentation of the undulation of the curves. The blood-pressure diminished with the temperature. Thymol has no bad effect on the heart, and is, therefore, an important antipyretic.—*Gazette Hebdom.*, March 16, 1883.

Sudden Death in Gastric Ulcer.—Perforation of the stomach almost necessarily proves fatal by way of peritonitis, but in some instances death has been known to occur even more suddenly from the accident; that is, before inflammation has had time to be set up. Shock, hemorrhage, or suffocation has usually been accounted the immediate cause at work in this class of cases. Prof. Jurgensen has just described another and very remarkable mode by which gastric ulcer may suddenly prove fatal, namely, by entrance of the gaseous contents of the stomach into the circulation (*Deutsche Archiv für klin. Med.*, xxxi. page 441). A woman, aged forty-nine, suffering from severe symptoms of gastric ulcer, suddenly died, and within twenty-two hours the post-mortem examination was made, no appearance of decomposition being present in the body. A large ulcer was found on the posterior surface of the stomach, its floor being formed by the pancreas, and the splenic vein lay exposed and open. Manifestly as the result of this lesion, air was found in many of the bloodvessels, including the cervical, cardiac, and gastric veins, and the large trunks, and also in the cavities of the heart. Extreme interstitial and subserous emphysema could be traced from the seat of disease. *Prima facie*, there could be but little question of the source of the air and the cause of the sudden death; but to confirm his opinion, Prof. Jürgensen tried the experiment of injecting air into the femoral artery of one side in a dog, and watching the femoral vein of the opposite side. In a few minutes bubbles made their appearance, having traversed, therefore, both the peripheral and the pulmonary capillaries.—*Medical Times and Gazette*, March 10, 1883.

The Development and Growth of Nerves.—M. Vignal has given the following as the result of his researches, in a paper read before the Society of Biology: 1. The nerves are developed from the centre to the periphery, in the form of fasciæ, fine fibrillæ, and granulations ranged in order, and immersed in a homogeneous material. The periphery of these fasciæ is covered by embryonic connective cells; later, by a process of proliferation, these cells penetrate into the interior of the nerve fasciæ, and multiply there, dividing the fibrilli into small bundles and cover them. At the same time they differ from the ordinary connective cells by the great length of their longitudinal diameter, as compared with their transverse diameter, and being applied to the surface of the bundles of fibrilli, and constituting a special envelope for shaping and weld-

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ing them together. At this time the nerve-fibre is made up, in its essential parts, by the bundle of fibrilli surrounded by protoplasm, which, itself surrounded by an envelope, is the axis cylinder.

The myeline appears toward the end of the third month of intra-uterine life, under the form of a thin layer which envelops the axis cylinder; sometimes it does not appear in the whole length of the nerve-fibre, but in the form of balls more or less elongated. In the following months it gains in thickness, but parallel to this there is a development of the protoplasm, which often occupies much more space than the myeline. Towards the end of embryonic life, the fibres, with the exception of the protoplasm, have almost all the appearances of adult fibres. The development of the nerve-fibres is much more rapid near the centre than at the peripheral points.—*Le Progrès Méd.*, March 10, 1883.

DUPUYTREN'S ENTEROTOME.—Last October, a very stout woman was admitted into St. Bartholomew's Hospital, under the care of MR. WILLETT, suffering from a strangulated ventral hernia, situated midway between the umbilicus and the pubes—a very unusual situation. The patient had delayed long before applying to the hospital; and, when herniotomy was performed, the gut was found to be gangrenous, and an artificial anus resulted. The condition of the woman was thus very serious, as the portion of bowel which had sloughed was a knuckle of the small intestine, probably rather high up. All feces passed by the artificial anus, and the woman steadily emaciated. After delaying long enough to preclude the hope of spontaneous cure, Mr. Willett determined to resort to Dupuytren's operation, which consists in applying a clamp of peculiar construction to the piece of intestinal wall, called by Dupuytren the *éperon* or spur, which intervenes between the upper and lower portions of gut at the artificial anus. After considerable delay, two enterotomes were procured from Paris; and one of these, a modification of Dupuytren's original instrument, was applied on February 23d. The patient experienced no pain or inconvenience, and the enterotome came away on March 1st, holding in its jaw a piece of shrivelled tissue. Up to the present time, no benefit has apparently resulted from the operation; but it is gratifying to find that the gloomy forebodings, with which the proposal to apply the enterotome was received by some, have not been fulfilled.—*British Medical Journal*, March 17, 1883.

NUTRITIVE SUPPOSITORIES.—SPENCER (*Lo Sperimentale*) recommends that suppositories should be made of artificially digested meat, wax, and starch, in proportions necessary to obtain the desired consistence. When the rectum is very irritable, a small amount of opium may be added.—*Journ. de Méd. de Paris*, March 10, 1883.

THE TECHNIQUE OF RESECTION OF THE PYLORUS.—V. WEHR has made a series of experiments on dogs, under Rydygier's direction, with a view of perfecting the method of operation in resection of the pylorus. His recommendations, based on nineteen operations, are as follows: The most absolute antiseptic precautions must be observed; the stomach must be emptied as completely as possible before the operation; the omentum must be separated without loss of blood; escape of gastric and intestinal contents into the peritoneal cavity must be absolutely prevented; this is best accomplished by Rydygier's compresses; the stomach and intestine must be accurately reunited by three rows of close catgut sutures "furrier's round sewing." The cases require careful watching after the operation.—*Centralb. f. d. med. Wissen.*, March 10, 1883.

NATURE OF PHTHISIS IN DIABETES.—IMMERMANN and RUTIMEYER have put on record (*Centralblatt für klin. Med.*, No. 8) a case which is of interest in connection with bacterial pathology. A patient, aged twenty-nine, was brought to the hospital in a state of profound coma and dyspnœa. The urine contained three per cent. of sugar and a trace of albumen. The man succumbed in nine hours. At the post-mortem examination, a vomica in the apex of the right lung with caseation was detected. The contents of the cavity yielded bacilli, which behaved to staining-fluids just as those from tuberculous cases do. Death was attributed to diabetic coma. In a footnote, Leyden (one of the editors of the *Centralblatt*) states that he has discovered the tubercle bacilli in the sputa in three cases of diabetes complicated with phthisis. The authors speculate on the identity of the pathological process in the lungs of ordinary phthisis and in those of diabetes. The frequency of consumption in diabetes is thought to be explained by the hypothesis that the diabetic constitution affords a specially favorable soil for the growth of the bacillus.—*Medical Times and Gazette*, March 10, 1883.

SOLUTION OF ERGOTINE FOR HYPODERMATIC INJECTIONS.—M. DANNECY, chief pharmacist to the hospital at Bordeaux, obtains a solution in the following manner, which he proposes as a substitute for that of Bonjean: he exhausts by displacement, with cold distilled water, the ergot-rye, suitably divided and cleared of its oil by washing with sulphide of carbon; the liquid remaining is evaporated to about one-third its volume and cooled. The albuminoid matters deposited are separated by filtration, and the resulting liquid is placed in contact with animal charcoal, well washed for twenty-four hours at a temperature of 76°–86° F. Then filtering again after cooling, washing the charcoal-charged filtrate with a sufficient quantity of distilled water, mixing the decolorized solution and the water of washing, the whole is evaporated over a water-bath to 90 parts for 100 of the ergot-rye employed, and 10 parts of cherry-laurel water are then added; after cooling, this is again filtered. The solution thus obtained is of an amber color, strongly reddens litmus paper, and contains, per gramme, the same quantity of the acid principle as one gramme of ergot-rye; by concentration over a water-bath the strength may be doubled or tripled. Numerous experiments have proved the activity and harmlessness of this solution.—*Bulletin Gén. de Thérap.*, March 15, 1883.

OVARIOTOMIES IN ITALY.—PERUZZI reports that from July 15, 1880 to June 15, 1882, one hundred ovariotomies (completing the third hundred) were performed in Italy. Of these, 74 women recovered: 9 operations were not completed, of which 4 died. The supravaginal amputation of the uterus was done 27 times, with 7 recoveries.—*Centralblatt f. Gynäkol.*, March 3, 1883.

TREATMENT OF INFANTILE PARALYSIS BY ELECTRICITY.—DR. DIVE (*Thèse de Paris*, 1882), from very complete and interesting observations, concludes: 1. Continuous currents applied near the beginning of the disease, may cure. 2. Induced currents are efficacious later in the disease, and when the movements return in the paralyzed limbs. 3. The two forms of electricity combined and continued for a long time, produce the best results, especially in desperate cases.—*Bulletin Gén. de Thérapeutique*, March, 15, 1883.

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SATURDAY, APRIL 7, 1883.

RECENT SANITARY LEGISLATION IN NEW JERSEY.

THE Legislature of New Jersey, which adjourned March 16th, enacted a number of laws of importance in the sanitary work of that State. In a supplement to the general law governing local boards of health, many additions were made to the powers heretofore conferred on these boards, among which we may mention the following:

Local boards of health formed under the State law shall be the only bodies having powers relating to public health matters; local boards may abate nuisances or sources of sickness without passing ordinances relating thereto; the rights of local boards to abate nuisances are founded on police or summary proceedings on account of the peril to the public health from such nuisances; the State Board of Health may appoint township physicians where now no such officer exists; local boards of health shall have the authority to specify any contagious disease in which no funeral shall be had, and shall prohibit such funerals under a penalty of $50.

An important section relating to the compulsory reporting of cases of contagious diseases was passed, giving local boards of health power to enforce the reporting of contagious and infectious diseases by the attending physician, and requiring a record to be kept by the board of all such reports, and at the end of each six months the reporting physician is entitled to collect from the local board twenty-five cents for each case.

This is the first instance on record where the labor of physicians in such cases is to be paid for, and will forever silence that portion of the profession which has objected to informing the authorities without compensation for services rendered.

The law regulating the practice of medicine was amended and made more stringent; the provisions of this law are as follows: No person shall commence or continue to practise medicine or surgery without first filing a copy of his diploma with the clerk of the county in which he shall practise. Any violation of this provision shall be deemed a misdemeanor, and upon conviction the person violating the law shall be fined $25, or imprisoned for a term not to exceed six months, or both, for each prescription made, operation performed, or professional service rendered. Any person who shall have had twenty years' practice in one locality, and who shall file with the county clerk an affidavit setting forth such facts, shall be exempt from the requirements of the law. The county clerk is required to keep a record, open to the public, of all copies of diplomas filed with him, and also to transmit a list of those registering to the State Board of Health. The State Board will, in its annual report, publish a list of all physicians entitled to protection under the law, and thus much good will be accomplished. The old law, quite similar but not so strict as this, was rigidly enforced last year in Essex, Passaic, and other counties, and kept not a few irregular practitioners out of the State.

The law prohibiting the sale of adulterated foods and drugs was amended and strengthened. The State Board of Health is to appoint analysts and inspectors to aid in its enforcement. An appropriation of $1000 was made to carry out the provisions of the law. This act contains a very unique provision, one not found in similar laws enacted in other States, or in the English or Canadian adulteration laws; it provides that if upon inspection of food or drugs the same shall be found to be adulterated, the health officer or inspector shall have power to forbid the sale of the article until decision is rendered by the court. This will certainly do much good in certain cases, and we await with interest the result of its enforcement.

The regular annual discussion and attack on the law to prevent the sale of impoverished milk took place, but resulted rather in a victory for the law. This law has proved of great benefit to the farmers in the northern and eastern part of the State, in that it has kept off the market large quantities of poor milk; it has also done good by reducing the quantity of poor milk sold in our cities.

The principal objection to the law seems to be that it was rigidly and impartially enforced. There is now in the hands of the Governor an act prohibiting the sale of skimmed milk in cities in the State, but we are not informed as to whether he will sign it or not.

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The law to prevent the sale of dangerous illuminating oils, which did so much good last year, was perfected, and the test fixed at 100° Fahr., flash, instead of having both a flash and fire-test as formerly. The law now is similar to the New York statute.

One of the most important and philanthropic measures enacted by the Legislature was an act creating a State Council of Charities and Correction. This, although similar to the New York law in its purport, is not as sweeping in its requirements, as will be seen by the following of its provisions:

The Governor shall appoint six persons, who shall constitute a Council of State Charities and Correction, of which the Governor shall be president and an *ex-officio* member. The persons first appointed shall serve for one, two, three, four, five, and six years, respectively. This Council shall hold regular quarterly meetings at Trenton, and at such other places as may be deemed necessary.

The Council shall investigate the system of public charities and correction institutions of the State, and examine into the condition and management of all prisons, penitentiaries, jails, reform schools, etc., and of all State, county, town, and city lunatic asylums, hospitals, infirmaries, or other public institutions of charity or care, and of persons therein detained; and may recommend such changes and additional provisions as may be deemed necessary or desirable for the economical or efficient management of any one, or all of these institutions.

The members of this Council are to receive no compensation, except for actual travelling expenses and special services, and may appoint persons to aid them as inspectors; and shall send delegates to the meeting of the National Conference of Charities and Correction.

Persons in charge of all public institutions shall keep a record covering the following facts: name, age, sex, nationality, orphanage or half-orphanage, married or single, and other facts relating to the life, heredity, or history of the inmates; together with the cost of maintenance per day, amount earned by each inmate, hours of labor, etc.; and on the 1st of October, copies of these records must be sent to the Council. The Council will make an annual report to the Legislature. One thousand dollars was set apart to aid in the work of the Council. This law is a good starting-point, and cannot but be of benefit to humanity and society.

It cannot be said that the New Jersey Legislature has not been of late alive to public health interests in that State, and it certainly has done much good work, which will redound to the advantage of the Commonwealth and its citizens.

THE BACILLUS TUBERCULOSIS IN URINE.

THE acme of the bacillus wave which, since the publication of the researches of Koch, little more than a year ago, has been sweeping over the medical world, would seem to have been reached in the detection, in the urine, of the tubercle bacillus, by S. ROSENSTEIN, of Leyden (*Centralblatt für die medicin. Wissensch.*, Feb. 3). The fungus had been previously found, by Lichtheim, in the contents of the pelvis of the kidney of the dead body, but not in the living subject.

The patient was a man, thirty-seven years old, with good family history, who had himself always enjoyed good health until four years before coming under observation—when he first noted pain before and during urination. Two years later, he noted first in the right, and later in the left epididymis, a hardness as large as a small walnut, the testicles themselves being free. There was no lymphatic enlargement or disease of the lung; no fever. Micturition was frequent; the twenty-four hour's quantity between 800 and 1660 cc., and specific gravity 1012–1018. The urine was pale yellow, acid, turbid when passed, and highly albuminous; contained white flocculi as large as a pin's head, and deposited a sediment of pus and a little blood.

The urine was passed into a solution of thymol, and, after twenty-four hours, a drop of the sediment placed on a thin cover, dried over a gas-flame, treated according to Ehrlich's method, and studied with a Hartnack objective No. 3, eyepiece No. 9. Large numbers of bacilli were found in the white particles above referred to. Rosenstein claims, also, that they stain differently from the ordinary decomposition-bacteria found in the same urine.

No inference is drawn from these results. But it may be presumed that from them may be inferred tuberculosis of the epididymis. Here, indeed, is a practical application of rare value. In the case of the lungs, we have physical signs to aid us; but it is well known that we have nothing but guesswork to aid us in the diagnosis of tuberculosis of the urinary passages; and if we may infer from the bacillus thus found the existence of such disease, our difficulties are at end. We can only say, at present, that we fear it seems too good to be true.

THE ELECTRIC LIGHT IN SURGERY.

MEDICAL men, and especially surgeons, are constantly called upon to investigate the various tubes and closed cavities of the body, and when doing so have been defeated, usually, by the insufficient illumination. With Goethe, they have sighed for "*Mehr Licht.*" The problem seems to be on the eve of solution, if not indeed solved.

Apart from the mechanical obstacles, the difficulty has generally been to avoid the heat that

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necessarily accompanies intense light. Leiter, the well-known instrument maker, of Vienna, with the aid of Mikulicz and others, has devised an apparatus, described by Dr. Roswell Park in the March number of the *Brooklyn Annals*, which is of sufficient importance to justify prominent mention. It consists of a battery, and connected with it, a number of instruments fitted for the examination of various organs. To obviate the heat, each instrument is in a double tube, and between the two there passes a constant stream of water. Windows are made both for the emission of the light and for observation, and, when necessary, a lens or a series of lenses deflect the light to the observer's eye. The dentist can operate by its aid as well by night as by day. The interior of the urethra and the bladder, the ear, the nose, the larynx, the rectum, the vagina, the uterus, and even the œsophagus and the stomach are all made accessible to observation. Leiter has photographed the larynx by its aid, and Park has seen the pylorus as clearly as the optic disk —red as the retina, and in constant peristalsis, alternately opening and closing. A point which excited considerable interest some years since, he does not allude to, viz., whether there is any such transparency of the abdominal walls that a light in the stomach, bladder, or other organ would aid us in the diagnosis of abdominal and other tumors. Up to last autumn, only three of these instruments were in this country, one each in New York, San Francisco, and Chicago. Our ingenious American surgeons and instrument makers ought to be able to improve materially, however, on these complicated and, we fear, rather too clumsy instruments for general use.

THE article may also well point a moral in connection with our remarks on Medical Philology in our last issue. Not to speak of misprints, both of English, French, and German, or of the illegitimate word "diagnose," we must protest against the use of such admixtures of Latin and Greek as "vagino-scope" and "recto-scope." The first should be "elytroscope," and the latter "archoscope." One might as well speak of an "earscope" or an "auroscope" instead of an "otoscope." Moreover, the author in using the word "fenestrum" has evidently forgotten the fact that there is no such Latin word. The proper word is "fenestra."

THE BACILLUS TUBERCULOSIS IN THE DIAGNOSIS OF TUBERCULAR ULCER OF THE LARYNX.

B. FRÆNKEL (*Berliner klinische Wochenschrift*, January 22, 1883) has sought to determine the value of the bacillus in the diagnosis of tubercular laryngitis. After quoting various specialists to the effect that it is impossible or extremely difficult to recognize the tubercular ulcer of the larynx by means of any features peculiar to itself, he says that for many years he has taught that in the majority of cases tuberculosis can be diagnosticated as such by the laryngoscopic picture. He still admits, however, that there are a certain number of cases in which such a diagnosis is impossible. In these cases we are compelled to look for other aids; and such are afforded by "Koch's brilliant discovery of the tubercle-bacilli." By the aid of the laryngoscope and a brush, small portions are removed from the tubercular ulcer. This operation is said to be easy, and probably is, in the hands of the expert, Frænkel having failed but once in sixteen cases. In three only of the fifteen remaining cases did he fail to find the bacillus, having taken at least three specimens from each. The ulcers in these three instances were syphilitic. In nine of the twelve remaining cases the bacilli were found at the first examination; in two at the second, and the remaining one in the third. He claims that we can by this method determine with absolute certainty the tubercular nature of a laryngeal ulcer; but that in order to do this it is necessary to examine at least three specimens of mucus thus obtained. When a negative result is obtained in three such instances, we need not hesitate to declare the ulcer non-tubercular, let the remaining symptoms be what they may. As the bacilli are also found in ulcers in the larynxes of phthisical cases in which microscopic examinations post-mortem fail to discover gray nodules, such ulcers must be regarded as tuberculous in their origin.

SANITARY INSPECTION OF SCHOOLS.

WE have just received a copy of a bill amending Section 2,135 of the Revised Statutes of Ohio, so as to make the sanitary inspection of all schools in that commonwealth obligatory. The added clause is as follows: "And the said Board [of Health] is hereby required to inspect semi-annually, and oftener if in the judgment of the Board it shall be deemed necessary, the sanitary condition of all schools and school-buildings within the limits of the Corporation."

This bill contains, by implication, all the powers which were more explicitly expressed in a measure presented last winter, but which failed to pass. It applies to all schools, whether public, private, or parochial, and being thus a general measure, its advantages will soon be broadly tested.

Ohio is to be congratulated upon this progressive step, due to an enlightened public sentiment on the subject of health and education; and we commend the untiring efforts of Dr. Tuckerman and

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his coadjutors in behalf of the results just accomplished.

The subject of the health of school-children is more than ever the theme of discussion, not only here, but in other lands. It has borne rich fruit in the city of Brussels, where an excellent system of sanitary inspection has already been established.

As recently as January last, before the Annual Congress held under the auspices of the Educational Institute of Scotland, at Aberdeen, Dr. Farquharson, M.P., in a forcible address exposed the evils prevalent in the national schools, by which the health of children of tender years is imperilled, and pointed out the remedies to be adopted. He strongly advocated the appointment of medical inspectors in schools, who should superintend the construction of all school-buildings, regulate their ventilation, proper heating and lighting, and who should also have some voice in deciding the amount of instruction suitable for different pupils. His views met with general approval at the Congress, and will ultimately lead to good results. It is to be hoped that this public discussion of the subject will be continued until a rational system of protecting the health of the young while being educated shall have been everywhere adopted.

A mortifying contrast is, however, presented to this action in the conduct of the same legislative body when a bill making vaccination compulsory was introduced by Mr. Ellsworth. "There was a pile of fun in the House," says a special Columbus (O.) newspaper correspondent, when the bill was introduced. "Motions to refer to the committees on ditches, drains, and water-courses, printing, and federal relations, were made and lost. One member moved that the bill be made local, and apply to Ellsworth and his constitutents; and another that it apply to persons over 100 years of age," while the bill was finally postponed indefinitely.

That a body of men elected, presumably on account of their intelligence, by the people to represent them in enacting laws for the public good, should treat in this manner any measure seriously proposed, whether it be expedient or not, is disgraceful to those taking part in the puerile exhibition, and humiliating to their intelligent constituents. Let us hope that the latter will mark the offenders, and discriminate accordingly at the next election.

TRANSITORY POST-EPILEPTOID PARALYSES.

IN a careful discussion of this subject by M. DUTIL, which appears in the *Revue de Médecine*, No. 3, 1883, we find some points which may be of interest to our readers. True epilepsy is rarely accompanied with paralysis; on the other hand, partial seizures and epileptiform attacks are not unfrequently so complicated. Epileptiform convulsions due to cortical lesions are frequently associated with permanent paralyses. Sometimes the paralysis precedes the epilepsy—in other words, a hemiplegic or monoplegic is attacked by convulsions of the epileptiform character. Sometimes, on the contrary, paralysis succeeds to the epileptic attack—partial convulsions are followed by transitory pareses, or paralyses. Post-epileptoid paralysis is usually situated in the muscles which are exclusively, or chiefly, involved in the convulsive seizure. In general, it may be affirmed that where permanent paralysis is followed by epileptiform attacks, the lesion is situated in the cortical motor zone. On the contrary, the partial seizures, not accompanied by permanent paralysis, are due to lesions in the neighborhood of, but not in, the motor area. The presence or absence of permanent paralysis becomes, then, a means of topographical diagnosis.

Transitory paralysis of some minutes, hours, or day's duration after the convulsion, does not indicate a destructive lesion of the motor convolutions. It is induced, perhaps, by an irritative lesion at a certain distance from the motor area, and, it may be, under the influence of a peripheric irritation.

It is obvious that M. Dutil adopts in their entirety the views promulgated from time to time by Dr. Hughlings Jackson regarding the cortical motor centres, the effect of peripheral irritation, and the essential difference between irritative and destructive lesions of the motor area.

THE SEWERAGE SYSTEM OF MEMPHIS, TENN.

IN his report for the year 1882 Dr. G. B. Thornton, President of the Board of Health of Memphis, Tenn., remarks that it has been recently published by several widely circulated papers that the death-rate of Memphis has increased since the construction of the sewers, and is attributed to them. This, he contends, is an erroneous impression. The mortality of the city for the past two years exceeded that of 1880, but it must be remembered that the population also has increased.

The census of 1880 gave the city a population of 33,593, while recent estimations put the number at 46,014. Again, the increased mortality of 1881 as compared with the preceding year was not due to local causes, but to atmospheric influences, which caused a like high rate of mortality—mainly from diarrhœal diseases—in several localities in West Tennessee where there were no sewers.

The zymotic diseases which prevail so fatally in the impure atmosphere caused by sewer gas, such as diphtheria, scarlet fever, typhoid fever, etc., have contributed very little to the mortality of Memphis during the past three years. The total number of

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deaths from diphtheria in these three years was 53, from scarlet fever 15, and from typhoid fever 45. These are considered low figures for three years in a population of 40,000. Dr. Thornton selected these three zymotic diseases for this period to prove the fallacy of the assertions of those who criticise the death-rate of Memphis so invidiously, and seem to attach so much importance to what they are pleased to attribute to the evil effects of the sewers

KOCH AND SPINA.

WE have already called attention to the studies of Spina upon the so-called bacillus tuberculosis, as the result of which he feels justified in declaring the experiments of Koch defective, and his conclusions unwarranted. No other observer has so pointedly attacked the position of Koch, and in the face of the almost unanimous tendency of recently published opinions, Spina's results are nearly as startling as those of Koch, when announced just about a year ago.

For the present, we will simply invite the attention of our readers to the communication, in another column, of our Vienna correspondent, from which it appears that, whatever may be Spina's qualifications as a general histologist, he fails to display the skill in manipulative mycology which characterizes the labors of Koch. In a future issue we shall have something to say about Koch and his critics.

REVIEWS.

A TREATISE ON FRACTURES. By LEWIS A. STIMSON, M.D., Prof. of Surgical Pathology in Univ. of City of New York. 8vo. pp. xvi. 598. Philadelphia: H. C. Lea's Son & Co., 1883.

IT is so long since a new American treatise on Fractures has appeared, that we welcome Dr. Stimson's with no little pleasure. It is an excellent guide to the profession, and will be cordially received by it. It shows wide reading and good judgment. At times it is somewhat unsatisfactory from want of explicit directions, *e. g.*, in the chapter on treatment as to the time when passive motion should be begun in various fractures. The index, too, is not so full as it ought to be. Moreover, the book has somewhat too much of a local flavor for a work intended to appeal to the wide constituency of the entire country.

The number of figures is much less than it seems to be, for very many of them do double duty. Some are carelessly done, as Figs. 91 and 298 show Nathan R. Smith's anterior wire splint suspended vertically, so that no extension is made on the broken femur, though Figs. 92 and 299 show Hodgen's splint, which acts on the same principle, with very marked extension. Figs. 113 and 293 (from Hamilton) surely show fracture of the wrong leg.

We are glad to see Fowler's "carrying function" of the arm recognized, as also Dr. Allis' important papers on fractures near the elbow, and that the use of plaster splints is heartily commended. The book is a valuable addition to our surgical literature.

LA FEMME STÉRILE. Par le DR. P. M. DECHAUX, DE MONTLUÇON, Ancien interne des hôpitaux de Paris, Laureate de l'Institute, Médicin en Chef de l'Hôpitaul de Montluçon, Membre du Conseil d'hygiene et de Salubrité, etc.

THE STERILE WOMAN. BY DR. P. M. DECHAUX (MONTLUÇON), Laureate of the Institute, etc. 18mo. pp. 212. Paris: J. B. Baillière et Fils, 1882.

A NOVEL feature of this book, distinguishing it from all other medical books of which we have any knowledge, is a *lettre-préface* signed *une Grand'Mère*. Of all persons, we should select a "grandmother" as least likely to know any of sterility (from personal experience). She writes: "I believe that this little book will be of much interest to men generally, to naturalists, and to *grandmothers*." How it can interest the grandmothers we are at a loss to conjecture. But if the *lettre-préface* is a curiosity what shall we say of the author's preface, in which he apologizes for the use of technical terms, but says that the fault lies in his subject, and in the dictionary, which does not always furnish words sufficiently *converts*, and adds: "I certainly am for modesty in speech and action." He must be! We are reminded of the young lady who referred to a bull as a *gentleman cow*, though she did not go so far as to say that the fault lay in the sex of the animal.

As causes of sterility, the author mentions *vices of conformation, and uterine deviations and displacements*, but leucorrhœa he does not grant. On the contrary, he claims that this affection is normal to every woman between the age of puberty and the menopause. As a proof of this, he says it has been a common affection of women since the earliest times; that it plays an essential part in the organization and physiological functions of woman, because, as before mentioned, it is only present during the period from puberty to the menopause. A potent argument! True, he does recognize a degree of leucorrhœa which he calls *complicated*, arising from *manifest lesions*, functional troubles, and *general reactions*. And in speaking of the treatment *for complicated* leucorrhœa, he gives the speculum in particular and gynæcologists in general, such another blast as must surely deter all young practitioners from using such an instrument, or studying such a science, under pain of being ostracised.

Under a fourth set of causes given by authors, he mentions lymphatism, general feebleness, anæmia, chlorosis, nervous excitability, indifference, obesity, etc., but Chapter III. is commenced with the statement that of all causes, absence of the uterus is the only certain and admissible one. Chapter IV. treats of "Human Conception." But for this chapter, which contains a "discovery," we should not have thought it worth while to mention so remarkable a book. The author seems to have made a discovery regarding the exact manner in which the spermatozoa find their way into the cavity of the uterus. From all that we can gather, amid a volley of exclamation points, is the fact (?) that they *swim* into the uterus in the discharge, *la glaire uterine*, to which physicians have persisted in giving the name leucorrhœa, which they have persistently regarded as a morbid state, and which for so many years they have been vainly treating. "The common theory, the most seducing," says the author, "of intra-uterine injection of semen, is impossible because the uterus is always full, and because by mediocre forces one mucosity cannot displace another. To force a liquid into the uterus requires a syringe and a *surgical* force." We will merely say concerning this statement, that a case has been reported[1] of suicide

[1] American Journal of the Medical Sciences.

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almost immediately after coition, in which semen was found in the cavity of the uterus and in the *Fallopian tubes*. If it was not *injected into* the uterus, how did it get there? We are willing to concede that in many cases there is scarcely a possibility of such intra-uterine injection, as, for example, where the hymen remains intact after coition so as to preclude the possibility of penetration, but it may be pertinent to ask M. Dechaux why animals are furnished with long penes. If it is only necessary to introduce the semen into the vagina, a penis of one or two inches would be as efficient as one of six. The author has concluded that fecundation is produced by the intermediation of the discharge, which gynæcologists and other *errorists* call leucorrhœa, which he, however, calls *une glaire*. With this beam of light thrown upon the hitherto mysterious secret of fecundation, he now proposes to revolutionize the medical world.

As a *consequence of his discovery*, he assures us that a woman is likely to become pregnant if she has intercourse. This information is simply invaluable to those who already have enough children in their families. It will only be necessary for them to abstain from intercourse hereafter, and no unwelcome children will make their appearance. To prove his theory of non-injection, he triumphantly relates the case of a woman who married with an unreduced prolapsed uterus and had no children for twenty years. This was conclusive evidence that the intra-uterine injection of semen was not capable of causing fecundation. Probably, the idea that a prolapse of the uterus was a sufficient cause of sterility has not yet occurred to him. We have not yet noticed one-half of this remarkable book. One chapter, VI., treats of Sterility as a Force; Chapter X. of Artificial Fecundation; Chapter XII. of the Philosophy of Sterility, etc. But it is useless to protract this notice. We will only say that no library of literary curiosities is complete without a copy of it.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, March 13, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

SUTURING OF THE DIVIDED ENDS OF EXTENSOR TENDONS IN THE FOREARM.

DR. F. LANGE presented a lady patient who, about two months ago, fell from a considerable height, and struck against a china umbrella-stand and cut the tendons of the extensor muscles of the left forearm. He saw the patient two weeks afterward, when the wound was almost healed and there was extensor paralysis involving the third and fourth fingers, only the last two joints moving through action of the interossei. About four weeks ago he made a longitudinal incision, and found that three of the extensor tendons had been divided; namely, those belonging to the third and fourth fingers and to the index finger. The extensor indicis was not injured, because the action of the index existed. The divided tendons of the extensors were separated to a distance of almost one inch and a half. They were brought together and sutured with antiseptic silk. The hand was then put in a position of hyper-extension, and an antiseptic dressing applied. The sutures were removed at the end of one week. The result was that the movements of the fingers could already be quite satisfactorily performed, and it was probable that improvement would still continue to increase.

SUPRA-CONDYLOID FRACTURE OF THE HUMERUS, WITH INJURY OF THE MEDIAN NERVE; OPERATION.

DR. LANGE also presented a girl, eight years of age, who, in August last, received a supra-condyloid fracture of the left humerus from a fall of three or four feet and striking the arm against a beam. A dressing was applied, which she bore for some time, and during the third week—according to the mother's statement—painful contraction of the fingers and wrist occurred. At that time forcible traction seems to have been made, but the pain did not cease, neither the contraction; but, on the contrary, the hand became more and more contracted and paralyzed, and finally quite useless. From the time of the receipt of the injury, she had complained of pain at the site of the fracture. She came to New York about the middle of December, at which time the wrist and fingers were flexed to their utmost, and the movements of the fingers were very slight, indeed; only slight movement of the first phalanges and of the wrist could be made. Every attempt to stretch the parts was followed by intense pain, especially at the site of the fracture, where there could be felt distinctly a sharp protruding edge of bone, and between the fragments there seemed to be a sensitive chord, which he thought might be the median nerve, but this subsequently proved to be an erroneous assumption. The movements in the elbow-joint were restricted to an angle of about twenty degrees. There was paralysis of sensibility in the region of the median and the radial nerves, and entire absence of electric irritability. Dr. Lange recommended at first electricity, massage, and active and passive movements. This treatment was administered for about six weeks, at first with some marked success; after several weeks, however, the progress ceased, and the pain at the spot of the fracture persisted.

Dr. Lange then proposed an operation, assuming that the nerve at the point of fracture was irritated by the callus and adhesions, and at that time Dr. Sands saw the patient in consultation, and approved of the proposed procedure. About four weeks ago, Dr. Lange performed it, and cut down on the inside of the elbow-joint against the protruding fragment, and found the following relations: the median nerve ran in front of the sharp edge of the bone in an angle, and at that point was somewhat flattened. Above that point it was somewhat swollen and thickened. The spindle-like swelling which he felt before the operation was a mass of muscular fibre belonging to the brachialis anticus. He loosened the nerve, excised the protruding fragment of bone, and since that time there had been decided improvement, both with regard to the facility of movements of the fingers and the use of the hand. The strength of the muscles which are supplied by the median nerve had not improved very much, and yet it seemed as if the cramped condition which existed in the flexor muscles was steadily decreasing. It seemed also that the extensor muscles had become more active since the operation. There was one interesting point, namely, that since the operation an entirely different and more normal form of nail was growing, and there were ridges on all of the nails alike, marking those parts of nail before the operation from that after it. The color and temperature of the skin had also markedly improved. Having been of a pale bluish before the operation, it was now of a more rosy tint. The temperature of the wound had become normal.

DR. C. T. POORE then read a paper entitled

SOME EXPERIENCE IN EXCISION OF THE HIP-JOINT.

He said: I do not think that I have anything new to offer in regard to excision of the hip-joint; the object of this paper is simply to call out discussion.

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As far as my experience goes, suppurative disease of this joint has its origin in an osteitis, or osteomyelitis, as it is sometimes called, of the head of the bone, the articular cavity being involved secondarily. This paper is based on the experience in eighteen cases of excision occurring among the poorer classes and in hospital practice; they are not therefore to be compared with cases occurring among the better classes.

Ten cases occurred in girls and eight in boys; the youngest was two and a half, the oldest was fourteen years of age. The disease has lasted from two to sixteen years. Many of the patients had been under strict mechanical treatment for from one to four years without any effect on the course of the disease. Abscess continued to form and discharge, so that in not a few patients the thigh and gluteal region were riddled with openings, from which pus continually flowed, while in others only one opening had formed. Excision was performed in all cases in the same way, with a long incision over the trochanter major, the tissues separated from the bone, and the head removed; in thirteen cases above the trochanter minor, and in six below that point. In four cases, after some months, the end of the femur was excised.

The pathological conditions underlying the external symptoms mentioned above were as follows: in seven cases the disease was confined to the head of the bone, the shaft appearing healthy; in all these cases the cartilage had entirely disappeared, and in most the head was represented by tubercles, or lay loose in the cavity of the acetabulum. The shaft was diseased in eleven cases; by this I mean that the central cavity was enlarged at the expense of the compact tissue, so as in many cases to admit the finger. The external shell had in many places a worm-eaten appearance; the bone was of dark color, and so soft that a probe could be easily made to perforate it. In a few cases the cavity was filled with pus; the periosteum did not appear much thickened, but was easily separated from the shaft. The floor of the acetabulum was more or less diseased in all of the cases; it was perforated in four; it was extensively diseased in its upper and posterior border in nine. In two cases I have seen a perforation of the upper wall opening on to the dorsum of the ilium, the external edge forming a bridge over it. In one case there was extensive disease of the pelvic bones; in short, they were all cases of advanced disease, and the pathological conditions such as in other joints would call for excision.

The result in these eighteen cases was as follows: Two are still in the hospital, leaving sixteen to be accounted for. Of these, eleven died and five recovered—about thirty-two per cent. The causes of death were—from pure exhaustion, one; tubercular meningitis, one; septicæmia, one; phthisis, one; amyloid degeneration, seven, in one of these cases the wound had entirely closed at the time of death. Death did not take place in these cases for some time after the operation, varying from two months to four years. The immediate effect of the excision in these cases was an improvement in all respects. The patients were free from pain, increased in flesh, had normal temperature, and in most of them were able to be about, but the wound never entirely closed except in one case. Sometimes only a small sinus was left. After a time an examination with the probe or finger revealed the upper end of the femur bare and rough, and from its cavity unhealthy granulations growing; and an examination of the abdomen in many showed the liver enlarged, and disease of the kidneys. In some cases the end of the femur was re-excised, and the cut surface exhibited the same unhealthy condition. These patients died not *from* but *in spite* of the operation. Of the five patients in whom recovery took place, and by this I mean that the wound entirely closed, no sinus remained open, and the child had use of the limb. The disease had existed six years in one, three years in one, two years in three cases. In all these patients the family history was comparatively good. In two cases, at the time of the operation there was enlargement of the liver. In one of these, albumen in large quantity was present in the urine, and the patient had two quite profuse hemorrhages from the lungs. Section was made one inch below the trochanter minor on account of profound disease of the shaft, yet recovery took place. In the other case the disease was confined to the head of the bone.

In regard to the permanency of the cure, one case was heard from five years after leaving the hospital. He was going about and had good use of the limb. One I examined six years after; he was well, and had been following the occupation of an express driver. One was seen eighteen months after his discharge, and was well. The other two cases I have lost all trace of.

In regard to the amount of shortening in these cases, it varied with the duration of the disease, its extent, and the point of section. In four cases it was as follows: three-fourths of an inch; one and one-fourth at time of discharge, and one and three-fourths eighteen months later; seven inches five years after leaving the hospital. In one case, two inches.

The elements going to make the shortening after excision of the hip-joint are—first, the amount of bone actually removed; secondly, the amount of atrophy of the whole limb from disease and disuse, and thereby the amount of stretching of the band holding the end of the bone to the pelvis. Three of my cases walked well without either crutch or cane. One with seven inches shortening cannot afford to keep himself provided with a high shoe, although he can bear his weight on the limb; he therefore uses a crutch.

In referring again to the cause of death, it will be noted that in all but two patients, it was due to diseases secondary in their nature; namely, amyloid degeneration, tubercular meningitis, and phthisis. The deaths from septicæmia and exhaustion were due, one to the operation, and one to the joint disease. All the patients having amyloid disease belonged to families having a marked tubercular diathesis. In some cases these changes in the abdominal organs came on early; others, late, after suppuration had made its appearance. It would seem that from a study of these cases, and others in which no operation had been done, that there is a marked predisposition among children of tubercular parents who become thus affected in the course of hip-joint disease. I have never seen a case that was not so connected, and it would seem that the more profound the hereditary influence the earlier these changes appear.

Two of the patients operated upon had, at the time of excision, marked enlargement of the liver, and one albumen in large degree in her urine, yet both recovered, and on examination made five years later, in one the liver was found of normal size; the albumen disappeared shortly after the operation.

I have never seen a true dislocation of the head of this bone on to the dorsum of the ilium.

The questions that naturally suggest themselves from a study of these cases are: First, Was a cure by mechanical and expectant treatment probable? and, secondly, What are the indications for excision of the hip-joint?

In regard to the first, I am clearly of the opinion that a spontaneous cure was not probable. The fact that, in those cases that proved fatal after excision, the patient improved in all respects for a time, varying from six months to over a year, and that they finally died of secondary disease, would seem to corroborate that

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opinion. I think that an earlier operation would have diminished this rate of mortality.

In regard to the second question, "What are the indications for excision?" I think that it is more difficult to lay down any rules. In cases giving a good family history much can be done by mechanical treatment, and I do not think that an early operation is called for. But in the class of patients belonging to families of marked tubercular ancestry, and in hospital practice, I think that the question of excision should be considered soon after abscesses have made their appearance, as there seems to be a kind of malignancy in these cases.

The presence of amyloid changes is not a bar to recovery, but is a very serious complication.

DR. SANDS said that he thought the rule followed by Dr. Poore, of postponing the operation of excision until the disease has reached a chronic stage, was better than the opposite rule of early interference. As already remarked by Dr. Poore, the cases which are seen in hospital practice are usually of an aggravated character, and, as a rule, have already been subjected to the rest treatment, and treatment by extension without avail, before they are admitted. He supposed, however, that all would agree that until these milder methods had been found to be unavailing, excision should be withheld; for it is a fact, that in private practice, where ample means are at our command, a very large number of patients with hip-joint disease recover, either with entire restoration of the functions of the joint in a few cases, or with anchylosis in other cases, thus obviating the risks attending excision of the bone. But, as Dr. Poore had remarked, when abscesses have formed and sinuses exist, and there is every indication that nature can do no more, and when by postponing an operation the general health of the patient becomes more impaired, and secondary changes in the liver and kidneys especially become probable, excision seems to be the only expedient to which surgeons can resort. It did not seem to him that the indications in hip-joint disease were different from those of disease in other joints, in which there is no question with regard to the propriety of surgical interference. His experience corroborates Dr. Poore's in this particular, that usually there is very decided amelioration of symptoms after performance of excision, and it would seem that this is more certain to occur now than formerly, when we paid less attention especially to drainage, and had got the advantage of antiseptic surgical dressings. He had operated twice within the last six weeks for excision of the hip-joint; both patients were children, one a girl six years of age, the other a boy nine years of age; both had been under observation for one year, and had well-marked disease with abscesses when they entered the hospital. In both, the operation was postponed, in the hope that the abscesses would disappear; but the general health of the children began to give way, and it was very plain that the disease would proceed to an unfavorable termination if left to pursue its natural course. In both cases the acetabulum had been perforated, and the extent of destruction reached nearly as far as the level of the trochanter minor. In both cases the femur at the point of section showed signs of osteitis, and in both the improvement after operation was very marked, although in one more so than in the other. The boy, whose appetite had already entirely failed, and whose pulse was very rapid, improved so much immediately after the operation that he was able to eat, while his pulse was very much diminished in frequency. In the girl the shock of the operation proved severe for a few days, but after that her general health began to improve, and the improvement had continued. He thought that surgeons should not abstain from the operation because a radical cure is not very likely to take place. It seemed to him that the palliation afforded by the operation was sufficient to justify its performance. Respecting complications in bad cases, such as degeneration of the liver and kidneys, while it is a general fact that such complications are fatal, it occasionally occurs that the enlargement of the liver either diminishes or disappears. He could recall one case, that of a lad twelve years of age, upon whom he operated in 1870, and in whom a very bad state of affairs existed at the time of the operation. There were extensive abscess and sinuses, and there was disease of the head of the bone and of the acetabulum, the latter, however, not perforated, and the general condition was such as to give but little expectation of a good result. But the wound healed, and although afterwards it reopened, no dead bone could be found. Finally permanent closure took place about one year after the operation; soon afterward the urine became albuminous, and two years later there was a very decided tumor in the abdomen, evidently formed by an enlarged liver. The boy has remained anæmic ever since the operation was performed, and although albumen still continues to be present in moderate quantities in the urine, the enlargement of the liver has disappeared, and the lad has grown to be a man, is now fairly well, and able to walk without any assistance except that derived from a thick-soled shoe. This boy's parents are living, and are in excellent health; there is no hereditary tendency to tubercular disease.

DR. J. C. HUTCHISON remarked that a few years ago there was a great disposition to excision of the head of the bone in cases where it would seem that the patients would recover without it. The tendency, however, had turned in the opposite direction, and probably many cases which should be operated upon were neglected until it was too late. It seemed to him that where the disease had resisted all the usual treatment, such as rest, extension, etc., and abscesses had formed, and the patient is gradually growing worse, and especially where there were some evidences of amyloid degeneration, that the operation is clearly indicated. He had seen a great many cases recover under the most adverse circumstances, with anchylosis, of course, and sometimes the deformity was such as might subsequently be remedied by an operation.

DR. BRIDDON had seen a number of cases like those reported by the author of the paper, and he thought that the majority of those in which perforation of the acetabulum had occurred terminated fatally. Cavities resulting from accumulations of pus within the cavity of the pelvis were difficult to drain. He had one specimen in which the perforation was large enough to have allowed the passage of the head of the femur, but it was not displaced in that direction. The most favorable result he had seen was in the case of a child, eleven months old; the excision was made in the Presbyterian Hospital. One year after, the shortening was little over a quarter of an inch, all the movements of the joint were free, the sinuses were closed, and the patient is now in robust health, and an inmate of the institution at St. Johnsland. In all the cases that he had seen, the patients were the children of tuberculous parents. In one case of long standing, in which the patient had recovered from the effects of the active processes of disease, he had judged that the caries had ceased, and that the numerous sinuses which refused to heal were kept open by the presence of a sequestrum. An explorative operation was made; the head and neck were gone, and the acetabulum was filled with a bony growth, in the centre of which was an imprisoned mass of necrosed bone. In that case, the sinuses persisted for a long time after the removal of the offending cause. He had recently seen a young

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woman who was in the Presbyterian Hospital four or five years ago. All her sinuses had closed, and at times she could get about with tolerable comfort, but for a large portion of the time she was confined to her bed by pain. She had for some time suffered from diarrhœa, and he thought it possible that these discharges might indicate that the external sinuses had closed, because the pus had sought an outlet through the acetabulum and rectum, but an investigation in that direction did not sustain the suspicion. Would not the symptoms in this case warrant an explorative operation?

DR. SANDS asked Dr. Briddon if he meant to say that the children, in his cases, had tubercular disease.

DR. BRIDDON replied that all these children were the offspring of parents suffering from phthisis, and that, although in most of these cases there were no evidences of visceral tuberculosis, he believed that the caries was tubercular, and he was inclined to think that we were coming back to the idea that tubercle was the cause of many of the cases of disease occurring in the cancellous structure of bone.

The PRESIDENT remarked that in deciding the question whether in any given case excision should be performed, he believed a much safer conclusion would be reached if the possibilities in these cases were always borne in mind. There is no case which is absolutely hopeless. Even cases in which perforation of the acetabulum has occurred and intra-pelvic abscesses exist, are not certainly and absolutely hopeless. In making up his estimate with reference to the result in any given case, he had been influenced in his judgment by one striking instance which he had seen. After languishing for a long time with numerous abscesses connected with disease of the hip-joint, a young girl, in whom the operation of excision seemed to be entirely indicated, and to whom it was recommended but refused, finally recovered. During the progress of the case, abscesses formed in the pelvis and discharged fecal contents, showing that there was communication with the intestine. The patient finally was able to walk upon the anchylosed limb, and many years afterward he saw her, and she had become a fleshy, healthy girl, with an appearance of the tissues about the hip-joint which was somewhat remarkable. In her thin, emaciated condition, the soft parts during the healing process had become united to the bone opposite each fistula, and the interspace between being gradually filled up with fat, left about the hip six or eight depressions nearly as deep as the length of his finger at points corresponding to those at which the old sinuses opened.

DR. SANDS asked the President if he did not consider such a result so sufficiently rare as not to justify the surgeon in accepting it as a criterion.

The PRESIDENT remarked that the result was extremely rare; nevertheless the possibility of such an occurrence he believed should be accepted, and should have its due weight in the mind of the surgeon when considering any individual case.

STRANGULATED HERNIA.

DR. GERSTER presented a specimen, and related the history of the case as follows: A working man, thirty-five years old, had had a reducible oblique inguinal hernia since his eleventh year, and had worn a truss for seventeen years. In the evening of January 30th a sudden abdominal pain compelled him to leave work, whereupon he, of his own accord, took a large dose of salts and went to bed. Vomiting and more pain supervening, the family attendant was sent for, who made an unsuccessful attempt at taxis. Fecal vomiting, intense local pain, with tenderness all over the belly, induced Dr. Gerster to have the patient transferred to the German Hospital, where herniotomy was practised January 31st. Eighteen hours after the beginning of the incarceration, ether being the anæsthetic used, the very large, tense, and somewhat reddened tumor was incised in its full length down to the sac. This being opened, some reddish serum escaped, and a large omental mass presented itself, which was found to be firmly attached to the lowest portion of the sac. Both pedicles having been secured by catgut ligatures, this was removed, exposing about ten inches of small, much distended, dark-red intestine. The strangulation now was relieved by the usual steps. The strangulated portions of the gut were carefully drawn forth and examined. The knuckle of intestine showed no unequivocal signs of necrosis, was uniformly reddish-brown, not mottled or gray; its feel and turgor were normal, both at the convexity and at the places of strangulation, the serosa shining, so that it was deemed proper to replace it in the abdominal cavity. The sac, which was closed at its neck by a purse-string-like strong catgut suture, including the external ring, was cut away below this suture and entirely extirpated. The operation was finished by the application of a row of external sutures and an antiseptic dressing.

Immediately after the operation marked relief was felt, nourishment was retained, wind passed, and vomiting ceased. Five hours later the thermometer showed 103° Fahr., but the pulse was good and the patient felt well. Next day some meteorism, slight nausea, and a temperature of 103.5° Fahr. were noted, wherefore one grain of opium hourly and an ice-bag on the belly were ordered. On the third day after the operation nausea and meteorism had still more increased, and the patient's skin and sclerotic had attained a marked icteric hue. Temperature ranged between 102° and 103°, the pulse between 110 and 120 beats. The patient complained of pain in the hypogastrium, which, however, did not increase on pressure. The wound was found well united and without a trace of reaction, so that some of the absorbed catgut sutures could be wiped away. The night was passed badly, in spite of large quantities of opium. On February 4th it was reported that the patient, having vomited last night, had a violent coughing spell, when he felt as though something had given way, but not feeling any increase of pain, did not call the nurse. Next morning a knuckle of injected gut was found protruding from the open external wound; it had become firmly adherent to the walls of the wound by exuded lymph, and in view of the meteorism, vomiting, high fever, and generally bad condition of the patient, it was decided not to disturb the protruding gut, but rather to make an attempt at utilizing the state of affairs. The finger was carefully introduced into the inguinal canal, and it was ascertained that no strangulation was present, whereupon a long incision was made into the gut, and, some gas having escaped, a soft catheter was pushed well up into the upper part of the intestine, this portion having manifested itself by the escape of fecal matter. Thus it was hoped that more gas would escape. The patient died the same day at 3 P.M., with all the signs of a most acute septicæmia. It was noted that as the rate of the pulse rose the temperature declined, till shortly before death the temperature was 90° Fahr. Pulse filiform, and not to be counted.

Post-mortem examination revealed the absence of septic peritonitis. A small quantity of orange-colored, clear serum escaped from the cavity. The prolapsed gut lying in the wound belonged to the lower part of the ileum, and showed signs of adhesive peritonitis. In the left iliac fossa a mass of agglutinated slate-colored intestine was found, representing the hernial contents replaced at the operation. The places of strangulation were still clearly visible by a band-like depression at one end, and by a loss of continuity of

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the serosa at the other end of the knuckle. Here the tissues were not necrosed, whereas at the convexity of the knuckle, where at the operation normal turgor and feel were present, an extensive portion of the gut was necrosed and shrivelled, but not detached. The intestine having been opened, a band-like coat of diphtheritic, grayish-white membrane was found closely adherent to the mucous surface, corresponding exactly with the sites of strangulation. The mucous space enclosed by these two lines was covered throughout by a multitude of round and confluent diphtheritic patches, some of which, being denuded of their gray coating, presented themselves as shallow ulcers. These ulcers appeared to be the same both over the necrosed and the non-necrosed portions. The mesentery was found turgid and reddened, but not necrosed. The cause of death was acute septicæmia from enteric diphtheria and necrosis, caused by a strangulation of eighteen hours' duration, and probably favored by the action of the laxative.

Here we had, then, a case of very acute strangulation, where at the operation for its relief the gut was found to be without signs of imminent necrosis, fairly turgescent, and where some five or six hours after the operation that portion of the intestine necrosed which had not been subjected to the direct pressure of the strangulating ring. Clearly, changes in the arterial blood-supply from the mesentery must have been the cause of this issue, and not direct pressure, as is most frequently the case. This is the second case of a similar nature occurring in the experience of Dr. Gerster, and he pointed to the insufficiency of our knowledge in determining at the time of herniotomy whether the given intestine will or will not undergo necrosis after replacement. He called attention to the fact that the external appearance of the hernial contents in many cases presented no reliable signs for determining the future of such an intestine, and that the surgeon still had to trust to good luck. A narrowing down of the limits of this class of cases was very desirable.

DR. BRIDDON said that some years ago he saw a German woman, in consultation with her physician, who had been suffering for nearly a week from symptoms of moderate strangulation. The right groin was occupied by a painful swelling; the skin was adherent to the subjacent structure; it was red and inflamed, and fluctuation was distinct. On dividing the tissues, a collection of pus was found external to the sac, which contained a knuckle of intestine, covered with granulations, and only very slightly adherent to the ring. The structure was divided, and the intestine was gently placed just within the ring. Everything went well until the seventh day, when, without the approval of her physician, and at the suggestion of an officious friend, she took an active cathartic. It operated through the natural channel and through the operation wound, which had been left open. The cavity of the peritoneum was not invaded. The fecal fistula gradually contracted and closed, and she got well.

He could recall another case of similar character which he had seen in consultation with Dr. Gillette. In that case there was suppuration of the sac. The gut was adherent to the neck of the sac, and it was sphacelated. The adhesions were not disturbed, the gut was opened, and the wound was left to close by granulation. Feces were discharged freely through the wound; but the amount diminished gradually. The fistulous channel contracted, and eventually healed. Several years ago he presented, at the Pathological Society, a specimen of strangulated intestine, which was removed from a woman, in whom the condition of prostration present did not appear to be warranted by the condition of the imprisoned gut, which was by no means much altered. The operation was followed by diarrhœa and death. He remembered that the late Dr. Krackowizer was present at the meeting, and expressed the opinion that death did occasionally occur after herniotomy from catarrhal inflammation of the intestine, due to the use of cathartics, administered before the strangulation was relieved, and which only commenced to manifest their action after the obstruction was removed.

DR. SANDS said there was one question which had not been broached in connection with the specimen presented by Dr. Gerster. He thought it was the rule with most surgeons in doubtful cases, to be careful to leave the suspicious portion of intestine at or near the abdominal ring, so that in the event of necrosis, an artificial anus would be likely to be established. He supposed that in the present state of our knowledge this is a proper rule. He could recall instances similar to those related by Dr. Briddon, where he had returned the intestine in this way, which subsequently became necrosed and led to the formation of an artificial anus, which subsequently closed spontaneously. In Dr. Gerster's case it would seem that death was not determined by peritonitis caused by the reduction of the intestine, but probably by septicæmia resulting from gangrene, which would have occurred equally if the intestine had not been reduced. This circumstance raises the question, whether it might be thought advisable to excise that doubtful portion of the intestine, and unite the edges of the remaining portion with sutures. This operation had been proposed and performed in cases where gangrene was manifest, and although theoretically such a procedure is correct, yet, experience has shown that the adjacent intestine is apt to be so much softened as not to be able to bear the strain of the sutures. Perhaps, however, in cases like the one narrated by Dr. Gerster, in which the morbid process had not far advanced, success might be possible.

DR. WEIR remarked, that in cases in which gangrene was recognized, the surgeon at once knew what to do. He was either to establish an artificial anus, or exsect the intestine, preferably the former. In the doubtful cases, it might be very difficult to decide which course to take, whether to cut off the strangulated portion of gut altogether, since the present specimen showed, with others he had seen, that there was risk of subsequent gangrene, or to partially replace it as already mentioned, and await the result. In one instance he had encircled the intestine with a loop of catgut, the ends of which projected from the wound, to keep the intestine in the neighborhood of the ring. The case, however, did well, and no use was made of this loop, which dissolved in the discharges.

The PRESIDENT remarked, that he had been guided chiefly by the condition of the capillary circulation, in answering the question whether or not the vitality of the gut would be retained. If, after pressure with the fingers, the return of the circulation is feeble and imperfect, he had always felt that the intestine was doomed to die.

DR. GERSTER thought we were unable in every case to apply satisfactorily this test mentioned by the President, as in many cases the gut was so engorged and thickened that pressure could only be made so far away as to be of no special value for determining the exact condition of the circulation in the portion which had been strangulated.

The PRESIDENT replied that he had always been able to decide the question satisfactorily for himself, after freely dividing the stricture, and he thought that, by the exercise of a little patience, the condition of the capillary circulation could be ascertained.

DR. WEIR exhibited an instrument devised by Mr. Treves, of London, for

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SUTURING DIVIDED ENDS OF INTESTINE

after the removal of a gangrenous or diseased portion. The details of the instrument are to be found in the *British Medical Journal* for December 12, 1882.

THE OVARIAN CORPUSCLE.

DR. BRIDDON presented a specimen of fluid removed by aspiration for diagnostic purposes from a tumor in which there was doubt as to the true nature of the disease. The whole abdomen was filled by an elastic, but non-fluctant tumor. The history gave no clue as to what point it started from. It was immovable, and its connections, if any, with the uterus could not be made out. The fluid was of the color and consistence of golden syrup, was alkaline in reaction, and its specific gravity was 1014. Heat transformed it into a coagulum which was dissolved by boiling with two volumes of acetic acid, determining the presence of paralbumen, regarded by some as significant of ovarian disease. Under the microscope he found some few epithelial formations, and a number of large, round, granular corpuscles, also considered as pathognomonic of ovarian cystic growths. In conjunction with this, Dr. Briddon presented a specimen of fluid which he had removed the day before from the tunica vaginalis of an old gentleman. This he also treated by the chemical test applied to the first specimen, and demonstrated the presence of paralbumen. Continuing the examination, he found under the microscope the same large, round, granular corpuscles—monster leucocytes.

DR. J. C. HUTCHISON then exhibited a *Simple form of Ether Inhaler.*

PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, December 4, 1882.

THE PRESIDENT, PROF. S. D. GROSS, IN THE CHAIR.

DR. FERDINAND H. GROSS reported

A CASE OF TRIGEMINAL NEURALGIA RELIEVED BY LIGATURE OF THE CAROTID ARTERY, AND NEURECTOMY,

which is published in full in the AMERICAN JOURNAL OF THE MEDICAL SCIENCES for April, 1883. He gave a condensed clinical history of the case extending over nine years, with an account of the various remedial measures undertaken for its relief. The result of the operative treatment may be summarized as follows:

1. The effect of the ligation of the common carotid artery was immediate relief in the domain of the first and second divisions of the trigeminal nerve; the period of immunity from pain in the second division being fully two years, while in the first division the pain has never returned, the relief there being probably permanent, and can only be accredited to the carotid ligation. The effect of this operation upon the third division of the nerve was too transient to count for anything.

It should be added that no impairment of intellect has followed the ligation. After the lapse of nearly two years and a half no disturbance of brain functions has been noticed either by Dr. Gross or the patient, or by any of those who are habitually associated with him.

2. The first neurectomy of the inferior dental nerve, eight months later, resulted in a period of relief from the neuralgia of about one year and three months—to remain within safe limits.

3. The last two operations, viz., the neurectomy of the superior maxillary and the repetition of the operation upon the inferior dental nerve, were performed within two months of each other, September 14th and November 11th, respectively, and may be considered together. The result thus far is entirely satisfactory, the patient being now, three months later, completely relieved of the neuralgia.

The PRESIDENT, after thanking the lecturer of the evening for the interesting and exhaustive manner in which the subject had been presented, remarked that the paper was well worthy of elaborate discussion, and requested Prof. Bartholow, who was present as a visitor, to give his experience from a medical point of view.

DR. BARTHOLOW expressed his gratification at the privilege afforded him in listening to the paper, which he thought was full of instruction, but would prefer to suspend final judgment as to the ultimate result of the operations until a longer time, say six months, had elapsed. While he could not speak of the subject as a surgeon, he would say that he had used, with good effect, in severe cases of neuralgia, deep hypodermic injections of chloroform, and in a number of instances with permanent good result. From five to fifteen minims was the quantity injected, but it was necessary to lodge the chloroform deeply and near the nerve-trunk. In only one case in his experience had there been any trouble from the formation of abscess after the use of this remedy.

DR. BRINTON stated that he had performed neurectomy three times, but in his experience there had been but little permanent good. In all the cases, the pain had returned in from six to twelve months. During that time, however, the patients were more or less comfortable, and regarded from this point of view, the operation would seem justifiable, as affording temporary respite from suffering.

DR. PACKARD said he had operated on one case, in 1869, trephining the anterior wall of the antrum, drawing out the nerve and dividing it far back.

The patient, a gentleman from Minnesota, had suffered extremely for twenty-four years. He derived immediate relief from the operation, which lasted at least for six months after his return home; since which time Dr. Packard had not heard from him.

DR. WILLARD related his experience with a case in which the inferior dental nerve was divided by trephining the ramus of the jaw. The patient had been a sufferer for five years, and had become addicted to the hypodermic use of morphia in enormous doses. The relief was partial for six months, when, the pain returning, a second operation was done, resecting an inch of the nerve, since which time, now six years, there has been no return of the disease.

DR. NANCREDE said that the remark made by Dr. F. H. Gross, with reference to the possibility of seeing the foramen rotundum through the orbit in some skulls, whilst in others it could not be seen, seemed of much interest, since Dr. Gross had shown on the two skulls he presented, that a somewhat different manipulation would be necessary in order to divide the nerve close to its point of emergence from the cranium. A cursory glance would show that these two skulls presented marked examples of two types of orbital fossæ, viz., the quadrate and the rounded. In the former, the transverse diameter is fully one-third greater than that from above downward, while in the latter they are nearly equal. Where then the transverse diameter very much exceeds that from above downwards, the floor of the orbit is, as it were, *raised*, and the foramen rotundum hidden from view; whereas, when the opposite measurements obtain, this opening can be seen. Dr. Nancrede then pointed out that the junction of the external angular process of the frontal bone with the malar, could be readily detected on the living subject as well as, approximately, the suture between the internal angular process of the frontal with the nasal process of the superior maxillary bone. Measuring between these two points would give the transverse diameter.

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Again, the supra-orbital notch or foramen is usually readily detected; while a line dropped from this point with a slight inclination outwards, will strike the margin of the orbit just above the infra-orbital foramen, which opening can be usually detected by careful palpation. Measurement between these points of the orbital margin would give the diameter from above downwards. By comparing the diameters, Dr. Nancrede thought that one could predicate before an operation, whether the foramen rotundum could or could not be seen from the operation wound. It might seem a point of small importance, but in a delicate operation like that performed by Dr. Gross, the minutest details were of importance, and "forewarned was forearmed."

DR. JOHN B. ROBERTS was especially interested in the result of the ligation of the common carotid artery; and, as the relief of pain was probably due to cutting off the blood current from the central portion of the nerves involved, suggested that ligation of the internal carotid might be as beneficial. This, as shown by Wyeth, can readily be done just above the level of the top of the larynx.

DR. R. J. LEVIS remarked, that in operations upon the inferior dental nerve he had sometimes found it difficult to draw the nerve out. In an edentulous jaw this might possibly not be so.

DR. F. H. GROSS, in closing the discussion said Dr. Nancrede's remarks upon the anatomical points of the orbit were interesting, as showing the possibility of determining in advance of an operation by external measurements the variations in the orbits of different skulls; but no matter what peculiar formation these measurements might lead him to suspect, he would still prefer Wagner's method of operating, although in some cases nice manipulation might be required to divide the nerve far back.

In Langenbeck's and Hüter's subcutaneous operations, the nerve was divided in the spheno-maxillary fissure, but in Wagner's the nerve is brought into view, and can be divided at a more central point, even at the foramen rotundum and behind Meckel's ganglion. In this operation, too, the violence done to the superior maxillary bone, as in Carnochan's mode and some others, was avoided.

As to Dr. Robert's suggestion to tie the internal carotid, the speaker thought he would prefer to boldly tie the common carotid. The object was, of course, to lessen the intra-cranial pressure and irritation. He further remarked that whilst it was unfortunate that the neuralgia sometimes returned after neurectomy, they had nevertheless heard of patients being relieved for years, and sometimes permanently, and that relief, even for a short time, from the atrocious pain of this malady was a great boon. He was fully in accord with the writer who had said: "the possibility of relapse should not militate against resection."

NOTE.—March 19, 1883, "at this date, over *four months* after the neurectomy of the inferior dental, and over *six months* after the operation upon the superior maxillary nerve, the patient continues entirely free from neuralgia."

CORRESPONDENCE.

PHOTO-MICROGRAPHY.

To the Editor of THE MEDICAL NEWS.

SIR: I have read, with much interest, the paper by Dr. Piersol, of Philadelphia, on "Photo-micrography by Lamp-light," in your issue of March 17th. Perhaps I may be permitted, as one who has worked in this special field for several years, to supplement his article by a few words of my own. I quite agree with his eulogy of the "dry-plate" process, having used the gelatine process extensively myself, and the "emulsion" process before it, with great success and satisfaction.

It is of great importance to line all the apparatus with a dull-black material; for the microscope tube, I always use a pasteboard lining covered with black velvet, and for the camera and extension shellac varnish made very thick with lampblack, and applied till the surface is perfectly dull when dry. If care is not taken, the black will crack off from the internally projecting edges of the bellows and produce a spot capable of reflecting light, so that I now use a bellows camera of my own make, in which the bellows part is lined with velveteen. Using a "Hartnack" stand, I find the draw-tube too narrow, and get better results by taking it out entirely, and replacing it by a velvet-lined tube of pasteboard. I have used the "Keystone" dry plates with much satisfaction, and can recommend them. The most difficult part of the manipulation is, undoubtedly, the focusing, and I may state that for a good many years I have dispensed with the ground glass, which has always been a source of error and delay, as well as necessitating some machinery to reach the focusing screw. I now use the following arrangement with great ease and comfort: A suitably sized hole is cut in the side of the camera bellows, and a glass plate covered with white bristol-board is used instead of ground glass, the operator viewing the image thrown on the white surface, which makes it very sharp and distinct; the least change in the focus being at once apparent. During exposure the hole is covered with a piece of velvet. If this mode is used, the position of the operator allows him, in almost all cases, to dispense with any cords or levers to move the focus-screw, as he can easily reach it with one hand. I have used objectives from four inches to one-sixteenth inch focus, and find the actinic and visual foci practically identical. With very high power objectives it is often useful to possess a camera with a focusing screw of its own, as this allows of a more gradual change of focus, by advancing or withdrawing the focusing screen, than can be accomplished when the microscope screw is used alone. As regards the objects suitable for photographic reproduction, I can only re-echo the words of Dr. Piersol: sections *must* be *very* thin, deeply stained, and sharply differentiated.

Yours very truly,

NELSON B. DE S. SIZER, M.D.

336 GREENE AVENUE, BROOKLYN, N. Y.,
March 30, 1883.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

A COMPLIMENTARY DINNER is to be given Dr. Oliver Wendell Holmes, of Boston, on April 12, 1883. Among the committee appear the names of Drs. Fordyce Barker, T. G. Thomas, J. C. Dalton, D. B. St. John Roosa, Cleveland, Sturgis, McLane Hamilton, and Draper.

EXTIRPATION OF THE UTERUS.—Dr. Wm. T. Bull, of this city, has performed his second successful extirpation of the entire uterus. There seems to be an unusual rivalry between the "pure surgeon," and the gynecologist just now, which threatens to assume formidable proportions.

THE COUNTY SOCIETY'S NEW DELEGATES TO THE STATE SOCIETY.—The election of three delegates by the conservative party, the other evening, was an unexpected blow to the supporters of the new Code. The lethargic old party has aroused itself, and, under the

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leadership of the younger Flint, appeared in full force at the meeting of the County Medical Society, at the College of Physicians and Surgeons, on Monday, and elected Drs. Leale, Ward, and Hitchcock by a majority of twenty. The end is not yet. Grim threats of a process just now in favor in Ireland, and known as boycotting, is hinted at. It is a significant fact that three homœopathists have resigned from their local county society since the passage of the new Code.

THE DEATH OF DR. W. H. VAN BUREN has saddened the profession during the past week. Dr. Van Buren was one of the courtly medical men of the old school, who are rapidly passing away, and was respected not only for his great talents, but for his personal nobility as well.

NEW ORLEANS.

(From our Special Correspondent.)

SMALLPOX.—Until within the past two or three days, the weather has been unusually cool for this latitude. This almost continuous low temperature has had its influence in perpetuating the epidemic of smallpox now prevailing in this city. Hot weather not only invites open windows and doors of sick chambers, but beyond question both shortens the period of vitality, and lessens the noxiousness of smallpox contagium. During the week ending March 17th there were 56 deaths from this disease; the total mortality of the city being 172. The week ending March 24th, gave 65 death from smallpox; total mortality 179. At a meeting of the Board of Health, held March 27th, a paper was read, which reported 331 deaths from smallpox since January 1st, of which 213 were colored. Nine hundred and seventy-seven cases have been reported, and, as the reader of the paper adds, "showing that two-thirds of the cases had not been reported." There is a city ordinance requiring all cases of infectious diseases to be reported to the Board of Health, under a penalty of fifty dollars fine. This statement of the common neglect to observe the city ordinances in regard to infectious diseases, is disheartening to all our efforts to arrive at a better condition of sanitary matters here. It is hoped that the ordinance which has just passed the City Council, giving the Auxiliary Sanitary Association power to employ twenty-five sanitary inspectors, will in a great degree furnish the remedy for this evil by detecting and bringing to punishment all violators of official sanitary laws.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA held its commencement last week. The number of graduates in medicine is seventy-four; in pharmacy eight.

The majority of the members of the Medical Faculty agree in the opinion, that the average excellency of attainments as shown in the final examinations, is above that which is usual.

A POLLEN SHOWER.—In referring to the meteorology of this season, it may be mentioned that on the night of March 16th, a shower of rain fell in this city, which brought a copious deposit of pollen from some "wind-wafted pollen" plant or plants. Such occurrences are by no means uncommon in this State, and yet a very large number of people consider them ominous of some portending evil. The color of the pollen was yellow, and as it formed very perceptible lines along the edges of pools of water, the ignorant took it to be brimstone. Indeed a person of education asked your correspondent if this phenomenon was not ominous of a yellow fever epidemic during the coming summer. There is no observation, so far as we know, which affords an exception to the declaration made half a century ago, that no clouds of dust, or organisms visible to the naked eye, are capable of originating pestilences.

VIENNA.

(From our Special Correspondent.)

SPINA'S STUDIES ON THE BACILLUS TUBERCULOSIS.—Dr. Arnold Spina has just published a book composed of two parts, the first of which gives a historical review of the histological and experimental work done in the department of tuberculosis, while the second is entirely devoted to Dr. Koch's recent startling discovery of the pathogenetic element of tubercle. We pass over the not very conclusive results obtained by an examination of the literature of tubercular disease, preferring to dwell on the second part of Dr. Spina's book, which alone contains original research.

Our readers are well aware of Dr. Koch's arguments in favor of the infectious origin of tubercle. By applying a new method of coloring, he succeeded in detecting what he believes to be a new specific organism, and sought to establish its relation to tubercular disease by two important facts. First, this organism—a bacillus—is nowhere found but in tubercular material, from which it is never absent; and, second, when cultivated and inoculated upon hitherto healthy animals, it causes well-characterized tubercular disease.

Now Dr. Spina's conclusions are opposed to both of the foregoing results; he contests both the specificity of the organism and its bearing on the origin of tubercle.

The specificity of Koch's bacilli, based as it is on their not being stained in a watery solution of vesuvin, when previously colored by an alcoholic solution of methylene-blue, Spina attempts to subvert by closer examination of Koch's proceeding. He shows that the same bacilli can be stained by a watery solution of methylene-blue, that they do not resist the action of acids, as Ehrlich, who demonstrated them by another method, is inclined to think; he even claims to have succeeded in staining them with vesuvin. He further points out that the bacilli rendered visible by Koch's and Ehrlich's methods are of highly varying shape and dimensions, and often present a striking likeness to other bacilli from non-tubercular material, which do not react with aniline color in the same manner.

If neither the reaction with aniline colors nor the outward appearance are sufficient to single out Koch's bacilli as peculiar organisms, Spina might well have spared himself the second series of his experiments, which are meant to show that no substantial connection exists between Koch's bacilli and tubercular disease. He detected a few bacilli brought out by Koch's method in the sputa of apparently healthy men, and in putrefying blood of the frog; he failed to find them in miliary tubercles of the peritoneum in man, and could not state their constant occurrence in the lungs and sputa of phthisical patients. He repeated Koch's experiments on the culture and inoculation of the bacilli, and detected no bacilli in the organs of the animals inoculated.

In conclusion, he grants that Koch's bacilli occur in greater number in tubercular material than elsewhere, and that the substance obtained by Koch's culture-experiments is more likely to originate tubercular disease than indifferent material, but he denies that our knowledge of the origin of tubercle has been advanced by Koch's researches.

We do not think, however, that Spina has made out his case, and we beg to offer some remarks on his observations. If the bacilli of tubercle be stained by a watery solution of methylene-blue as well as by an alcoholic one, and do not resist the action of acids, the

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specificity of the organism does not seem endangered by these methods of treatment. Even the most impressive among Spina's arguments, the discharging the methylene-blue from the bacilli by protracted action of vesuvin, is not altogether conclusive, for Spina does not contest the fact, that the bacilli in question resist vesuvin for some time, or that they can be made more distinct by a short exposure to the brown solution. It is this very peculiarity upon which Koch's method of distinguishing them from other bacilli relies. If Spina's observations prove true, they only prove that the chemical difference between the bacillus of tubercle and other bacilli is not so striking as was thought at first.

Spina's objections gain additional strength from the observation, that bacilli of different shapes are stained by Koch's proceeding. Whether there be several genera of bacilli, which agree in their behavior with he aniline color mentioned—we must remember that the bacillus of leprosy, though well distinguished by other chemical reactions, is possessed of the same peculiarity—or whether the one bacillus of tubercle is the subject of so great a variation in shape and dimensions, we should keep in mind the fact that the problem cannot be solved on this ground; because the outward appearance of a bacillus is not conspicuous among its characteristic features. In short, Spina's objection is not sufficiently sustained to make one doubt the existence of Koch's bacilli, although it suggests the wish that a better method for demonstrating them, relying on deeper chemical differences, could be found.

Considering the ubiquity of tubercular products in the air, we should not think it strange if a few specimens of the bacillus of tubercle can be detected in putrefying blood and other material prepared very likely in the rooms of the Vienna Hospital. Nor do Spina's examinations of the sputa of healthy people prove fatal to the diagnostic value or pathogenetic importance of the bacillus. Among twenty-four persons, only four presented the bacillus in their sputa, and of these four apparently healthy persons, one showed a flatness of the chest and dulness under the right clavicle; a second is described as possessing the well-known phthisical habitus, and only two are beyond suspicion of past or latent tubercular affection; yet the bacilli are very few in number and all the persons mentioned belong to the medical profession and pass their days in the great Vienna Hospital and Pathological Institute.

Spina's researches on the occurrence of the bacilli in sputa of phthisical patients and in miliary tubercles of serous membranes, where they cannot be deposited from the air, would be of the utmost importance were they not completely contradicted by the results arrived at by other inquirers. If Spina failed sometimes to detect bacilli in phthisical sputa, and never could reveal their presence in miliary tubercles of the omentum, Koch and others seem to have been happier, never missing the same organism in the same material. Here is assertion standing against assertion, and we must still prefer adhering to Koch; not only because one positive observation outweighs many negative ones, but also because Spina appears to have abandoned Koch's elaborate methods for the detection of the bacillus and neglected the use of Abbe's condenser in searching for them.

Spina's culture-experiments seem to have utterly failed, as is evident from his own statements. He never obtained a really sterilized gelatine to carry on the experiments, and all his preparations were lost by gradual drying up, which had to be carefully avoided in Koch's experiments. Yet Koch's cultures of the bacilli constitute a highly momentous link in the chain of proofs for the existence and pathogenetic bearing of the bacillus of tubercle.

To sum up our short review, we are of opinion, that Spina's book falls far short of a refutation of Koch's theory, which it is evidently intended to be, but we believe that it will do good by directing the attention of inquirers to the want of a more precise and thoroughly reliable method of demonstrating the bacillus of tubercle.

THE NEW CODE.—In a communication published in *The Medical Record*, DR. CORNELIUS R. AGNEW says: "There is not much in the New Code that I strongly desire to see retained. I am quite ready to abolish all but one or two clauses of it. I do wish, however, especially to see the clause retained which binds us all to acknowledge the public necessity for a "legally qualified practitioner." "Members of the Medical Society of the State of New York and of medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine." It is permissive, not mandatory. I wish to see the profession united to contend for that. . . . The medical man whom the State has pronounced to be a legally qualified practitioner, this chartered State Society cannot disfranchise, however much we may despise him or refrain from social communion or fellowship with him. We cannot discipline a member of our society if his conduct is in conformity with the law of the State."

POLYCLINIC IN RIO DE JANEIRO.—On November 15, 1882, a polyclinic was opened in the above-named city, under the direction of the distinguished Dr. Moncorvo.

SECTION ON OBSTETRICS, AMERICAN MEDICAL ASSOCIATION.—Members and delegates proposing to present papers before the Section on Obstetrics and Diseases of Women, at the meeting of the American Medical Association in June next, are requested to forward at once, or as soon as practicable, the titles or subjects of such papers, to Dr. J. K. Bartlett, Chairman, Milwaukee, Wis.; or to Dr. G. A. Moses, Secretary, St. Louis, Mo.

THE HEALTH OF SURGEON-GENERAL BARNES.—Ex-Surgeon-General Barnes, who has been ill for a long time, is yet quite sick, but has shown signs of improvement within the past few days.

THE JEFFERSON MEDICAL COLLEGE held its annual Commencement in the Academy of Music, on April 2d, at 12 M. The degree of Doctor in Medicine was conferred on 227 candidates. Dr. Addinell Hewson, on behalf of the Alumni, presented to the Board of Trustees a bust of the late Dr. Joseph Pancoast, Emeritus Professor of Anatomy. Dr. J. M. Da Costa, Professor of the Principles and Practice of Medicine, delivered the Valedictory, which was entitled "The Higher Professional Life."

NORTHWESTERN MEDICAL COLLEGE, ST. JOSEPH, MO.—The third annual commencement of this college was held on the evening of February 22, 1883. The degree of Doctor in Medicine was conferred upon eighteen candidates. Dr. S. F. Carpenter delivered the valedictory on behalf of the faculty.

THE NEW YORK COUNTY SOCIETY AND THE NEW CODE.—*The Medical Record*, in commenting on the New York County Society's recent election of Old Code delegates to the Society, comforts itself with the following reflections: "This result was saluted as a great victory. We trust that those who so announce it will have the fairness to add some of the accompanying facts. The vote was obtained by means of systematic canvassing and a preliminary caucus. Printed ballots

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were supplied and all the machinery for securing the desired end was put in action. The other side, which has already polled twice the number of votes cast at the last meeting, was taken by surprise and made little preparation for so vigorous a campaign."

The Medico-Chirurgical College of Philadelphia, at its Second Annual Commencement, on Thursday, March 26th, conferred the degree of Doctor in Medicine on ten candidates.

Dr. Ferdinand Ritter Von Arlt, Professor of Ophthalmology in the University of Vienna, has had the Cross of the Order of Francis-Joseph conferred upon him by the Emperor, on account of his many valuable services in the profession.

A Vice-President of the American Medical Association on its Code.—*The Medical Record* publishes the following extract from the late Presidential address before the Minnesota State Medical Society of Dr. Alexander J. Stone, now Vice-President of the American Medical Association:

"The Code, since its final adoption, has apparently been laid upon the shelf by the side of the family Bible, to be treated with almost as much reverence, to be read quite as seldom, and to be quoted only when its provisions enable one to discipline a rival, or to exclude him from the benefits of professional affiliation. A judicial consideration of the Code forces a conclusion that much which it contains is gratuitous insult to the profession, and more, is rather calculated to amuse than to impress with respect to the mind of the layman. There is not a clause or sentence in the first two articles which is not absolutely true; but, should the self-evident truths contained in Article I. be held constantly before the physician, as if by nature he was a brute who was to be taught the ordinary laws of humanity; a fool who must be taught a wisdom in the management of his patients which instinct alone would inculcate; a knave who must be withheld from empiricism; or a man without the instincts of a gentleman? Granted that men enter the ranks of the profession to whom the epithets of 'fool,' 'knave,' or 'clown' apply, of what value are the platitudes concerning brotherly love, or of what good is a formulated code defining the relations of medical men to the public or to each other? Among gentlemen such a code is unnecessary; among pirates it only serves to foster a cathauling hostility; as between a gentleman and a pirate, any difficulty which may arise is not to be satisfactorily settled by a reference to any code, because the standpoints from which each looks at matters differ too widely—nor are the penalties which the code imposes such as to deter a real rascal, nor is that unsovereign body, the medical profession, able to enforce its laws rigorously."—*Med. Record*, March 31, 1883.

Government Experimental Farm for Animals.—The Department of Agriculture has leased a piece of ground near the northeastern boundary line of Washington, to be used as an experimental farm and hospital in connection with investigations of diseases of animals. The grounds are being put in order, and buildings are being erected thereon. Dr. D. E. Salmon, who has for a number of years been employed by the Department in the investigation of diseases of cattle, swine, and poultry, will arrive in Washington about May 1st to take charge of the work. Dr. Salmon will bring with him a number of cattle and sheep, and the experiments will begin shortly after his arrival. The Pasteur system of inoculation will be adopted, with such additions and qualifications as have been suggested by Dr. Salmon's own discoveries while engaged in investigation at his farm near Asheville, N. C. The investigations now to be made will be on a much larger scale than any heretofore attempted by the Department, and will be conducted with the view of ascertaining the origin, causes and nature of the Texas cattle fever, pleuro-pneumonia, and hog and chicken cholera, together with means of preventing and curing these diseases.

Jefferson College Alumni.—The annual meeting of the Alumni of the Jefferson Medical College was held on Saturday, March 31st, Professor S. D. Gross in the chair.

The Committee on the Gross Professorship of Pathological Anatomy, presented a report, stating that considerable progress was being made towards accomplishing the project.

The following officers were elected for the ensuing year: President, Samuel D. Gross; Vice-Presidents, Drs. Addinell Hewson, R. J. Levis, Ellwood Wilson, and W. W. Keen; Recording Secretary, Dr. Thomas H. Andrews; Corresponding Secretary, R. J. Dunglison; Treasurer, Dr. Nathan Hatfield.

Life-saving on Railroads.—The Austrian Government Sanitary Council has prepared a set of regulations for life-saving on railways, and a guide to first help to those injured by accidents until the arrival of a physician. These have been sent to the several railway companies for examination and suggestions. Every conductor is to be provided with a leather case of bandages; a litter to be placed at every station and halfway between such stations as are more than nine miles apart; at every station a small case of surgical instruments, of specified kinds, is to be kept; a larger supply of instruments and bandages at stations fifty and sixty miles apart, where there are reserve locomotives, which locomotives are to pick up the cars and litters on the way to an accident. Still more complete provision is to be made at important stations where there are many servants. For every two hundred and fifty or three hundred miles of road, at an engine house, there must be a hospital car, of a specified pattern, used for carrying sick and wounded in time of war. The "guide to first aid to the injured" prescribes how the servants or others shall carry the victims of accidents, how place them, treat their wounds, apply bandages, transport them in the cars, and what to do in case of sudden illness.—*Sanitary Engineer*, March 15, 1883.

The Public Health in Connecticut.—The Secretary of the State Board of Health reports that pneumonia and acute diseases of the lungs take the leading place among the causes of death in February. The epidemic of scarlet fever, while subsiding in the cities first attacked, is extending into the State extensively, except the southwestern part, where measles and whooping-cough are more prevalent. Measles is also prevalent in some parts of Litchfield County. The epidemic of scarlet fever was quite severe in Hartford, causing sixty deaths since October. Diphtheria has been nearly as fatal, but shows signs of decrease.

There has been a peculiar type of disease in the State, which, as far as can be learned, appeared for the first time in New England this winter. It is called winter cholera. It was prevalent in Providence, R. I., and followed shortly after in Waterbury. Last year there were accounts of it in certain western cities. It appears in an epidemic form. No local cause has yet been found to be even usually associated with it. The disease is wrongly called cholera, for it does not produce death directly, and very rarely, if ever, indirectly. The symptoms are profuse watery discharges which

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evidently come from the blood; severe cramps; a pinched, sunken countenance, that is, the eyes appear sunken. After well established, there is a cold stage, the temperature falling to ninety-seven degrees, and cases are reported as low as ninety-six degress; the average temperature in health being ninety-eight and one half degrees. The average duration is four days. The symptoms somewhat resemble those of cholera, hence the name. Thus far, cities only have been attacked. The Board of Health has learned of no genuine case originating in the country. In most places the cases have been mainly among the prosperous, well-to-do citizens. In only one epidemic has a cause been assigned that was at all probable. There the poor, living in tenement-houses, only were seized, and suetine, or rather lard butter, which was poorly prepared, was charged as the cause; but this appears hardly probable, as no such association has been since found to exist. It is a peculiar disease, but easily controlled by treatment. A few cases similar to the winter cholera are reported from Cheshire.

The connection between foul air and pneumonia has been shown repeatedly. Persons coming out of ill-ventilated rooms, after breathing polluted air, which has already induced some congestion of the lungs by its irritating qualities, readily take cold, and a congestion which induces inflammation is easily excited. It is well known that there is a type of pneumonia induced by foul, polluted air, even without subsequent exposure to the colder air out of doors. Sewer gases from bad plumbing, or imperfect drains, contaminated air from polluted soil around the house, by heaps of decaying filth or saturation by kitchen and other refuse, if drawn into the house or habitually breathed, so depress the system and lower vitality that disease is readily engrafted.

In New Haven measles and whooping-cough have been more prominent, although cases of scarlet fever appeared during the month. In Cheshire, New Canaan, Thomaston, Plainville, and a few places widely separated, measles is quite prevalent, while bronchitis, influenza, catarrhal diseases, and pneumonia prevail generally.

The sanitary history of the year compares thus far unfavorably with its predecessor, due mainly to climatic causes. A few cases of malaria are reported, some fatal. Unless it is supposed that the virus lies dormant, we have cases originating at all seasons, but less often in winter and in cold weather.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending March 24, 1883, indicate that erysipelas, inflammation of the bowels, and bronchitis have increased, and that scarlet fever has decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported, during the week ending March 24, and since, at seventeen places, scarlet fever and measles each at sixteen places, and smallpox at one place.

OBITUARY RECORD.—Died, at Detroit, on the 8th of March, D. O. FARRAND, M.D., in the forty-fifth year of his age.

Dr. Farrand was born in Ann Arbor, Mich., in 1838, and pursued his medical studies at the College of Physicians and Surgeons, New York, from which institution he received his degree of M.D., in 1863. He then entered the regular army as assistant surgeon, but resigned at the close of the war, and settled in Detroit, where he rapidly acquired a large practice and prominence as a citizen. He was a member of the Detroit Board of Health, Surgeon to Hooper's Hospital, Surgeon of the Detroit Metropolitan Police, Surgeon-in-Chief of the Michigan Central Railroad, and Chief Medical Examiner of the Michigan Mutual Life Insurance Company.

——At Tübingen, on March 19th, aged seventy-one years, VICTOR V. BRUNS, the distinguished surgeon and Director of the Department of Clinical Surgery at the University of Tübingen. Prof. v. Bruns was well known by his contributions to the surgery of the larynx, as well as by a text-book on surgery, a work on the laryngoscope, and papers on nasal polypi.

——At Paris, on March 20th, 1883, of diabetes complicated with albuminuria, CHARLES-ERNEST LASÈGUE, Professor of Clinical Medicine in the Faculty of Medicine of Paris, in the 67th year of his age.

Prof. Lasègue was one of the editors of the *Archives Générales de Médecine*, and enjoyed a high reputation from his scientific *critiques* in that journal, and his works on Mental Alienation. In 1867, he succeeded Andral in the Chair of General Pathology, for which he was ably fitted, having been two years previously, in the Chair of Clinical Medicine at La Pitié. At the Palais, where he often appeared as an expert or a witness, he had made considerable reputation by his humoristic eloquence.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 26 TO APRIL 2, 1883.

BARNETT, RICHARDS, *Captain and Assistant Surgeon.*—To proceed to Fort Adams, Rhode Island, and report to the commanding officer for duty at that post.—*Par. 1, S. O. 51, Department of the East, March* 28, 1883.

CRONKHITE, HENRY M., *Captain and Assistant Surgeon.*—Relieved from duty at Fort McKinney, Wyoming Territory, and assigned to duty as post surgeon at Fort Fred. Steele, Wyoming Territory.—*S. O. 31, Department of the Platte, March* 22, 1883.

DE LOFFRE, AUGUSTUS A., *Captain and Assistant Surgeon.*—Granted leave of absence for three months.—*Par. 3, S. O. 71, A. G. O., March* 27, 1883.

LORING, L. Y., *Captain and Assistant Surgeon.*—To proceed without delay to Fort Schuyler, New York Harbor, and report to the commanding officer for duty as post surgeon.—*Par. 2, S. O. 51, Department of the East, March* 28, 1883.

MOSELEY, EDWARD B., *Captain and Assistant Surgeon.*—To report in person to the president of the Army Medical Examining Board, in New York City, for examination for promotion, and npon completion to return to proper station.—*Par. 3, S. O. 70, A. G. O., March* 26, 1883.

PAULDING, H. O., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Laramie, Wyoming Territory, and assigned to duty at Fort Sidney, Nebraska.—*S. O. 31, Department of the Platte, March* 22, 1883.

SKINNER, JOHN O., *Captain and Assistant Surgeon.*—To report in person to the president of the Army Medical Examining Board, in New York City, for examination for promotion, and upon completion to return to proper station.—*Par. 3, S. O. 70, A. G. O., March* 26, 1883.

TAYLOR MARCUS E., *Captain and Assistant Surgeon.*—To report in person to the president of the Army Medical Examining Board, in New York City, for examination for promotion, and upon completion to return to proper station.—*Par. 3, S. O. 70, A. G. O., March* 26, 1883.

TURRILL, HENRY S., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Fred. Steele, Wyoming Territory, and assigned to duty as post surgeon at Fort McKinney, Wyoming Territory.—*S. O. 31, Department of the Platte, March* 22, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, APRIL 14, 1883. NO. 15.

ORIGINAL LECTURES.

ON THE TREATMENT OF NEURALGIA.[1]

A Clinical Lecture

BY PROF. DUJARDIN-BEAUMETZ.

MEMBER OF THE ACADEMY OF MEDICINE, PHYSICIAN TO THE HOPITAL ST. ANTOINE, ETC., PARIS, FRANCE.

GENTLEMEN: I purpose devoting a lecture or two to that very common affection which you will often have occasion to treat, and the therapeutics of which you ought well to understand—neuralgia.

Despite the recent extensive researches into the functions of the nervous system, we have not yet precise and certain data concerning neuralgia, and we are compelled to define this affection by the principal characters which it presents, and neuralgia is still a symptom rather than a pathological unity. Without entering here into a discussion respecting the structural diseases of nerves, and the neuralgias, which are veritable neuroses, I believe that the symptom known as pain is produced whenever there is molecular alteration or modification of sensory nerves. I do not believe in "essential" neuralgias, and I am persuaded that when we come to understand better the physiology and pathology of the nervous system, that word *essential*, which only conceals our ignorance and our uncertainty, will disappear from the nosological category.

What is of importance for us to know from its bearing on the treatment of the neuralgias, is the pathology and etiology of this affection; on this point I must dwell briefly. I have told you before that in order that the functions of the nervous system may be regularly and normally performed, three conditions must be fulfilled. There must be: 1. Integrity of the nervous system itself, cells and fibres; 2. Integrity of the circulation; 3. Integrity of the nutrient blood. The sensory system of nerves is no exception to this law, and every circumstance, whether connected with the state of the blood or the bloodvessels, which modifies these nerves or their centres, may give rise to pain. Let us consider each of these conditions separately.

From the standpoint of the nervous system, all alterations, from the profound modifications of neuritis to simple molecular disturbances, may be the point of departure of the clinical syndrome described under the name of neuralgia; wounds of nerves, irritation, compression of nerves, inflammation of the neurilemma, neuritis properly so called, are all so many causes of persistent neuralgias. It has even been claimed that rebellious neuralgia is always neuritis. In my opinion, if inflammation of a nerve sometimes gives rise to a stubborn neuralgia, we are not to conclude from this that every persistent neuralgia is of inflammatory origin, for some quite obstinate facial neuralgias have a different origin.

As for circulatory troubles, they have a manifest influence on the production of neuralgic phenomena, and in this regard two sorts of neuralgia may be distinguished; those which result from want of blood—anæmic neuralgias, and those which result from excess of blood—congestive neuralgias, to which Gubler first called attention.

It is to these disturbances of the circulation that neuralgias due to the impression of cold have been referred, and which are so frequent. Some explain them as the result of anæmia of the cutaneous extremities of sensory nerves, others as the result of congestion of the nervous centres. The question is more complex than one would suppose, and it is impossible at the present day to decide it one way or the other. Lastly, in certain cases alterations of the blood constitute the point of departure of the neuralgia; it is in this way that chlorosis, the influence of certain poisons, of the marsh miasm, of certain diatheses, may give rise to veritable dyscrasic neuralgias. Whether resulting from alteration of the blood, of the nervous system, or from circulatory disturbances, these diverse modifications may affect the sensory nerve in three points of its course: its periphery, some part of the main trunk, or its central termination.

At the periphery, every cause which, through traumatism or atmospheric changes, modifies the terminal sensory fibre, may determine a neuralgia which shall spread to all the ramifications of the nerve. As an example, I refer you to dental neuralgia. A carious tooth produces some alteration of the dental pulp, and an irritation spreads along the dental nerve, causing pain in all the branches of the trifacial. The annals of medicine are full of similar facts, where we see neuralgias persist for years, in consequence of the presence in the tissues of foreign bodies which irritate the peripheral extremities of sensory nerves. But in order that there may be a painful sensation, a sentient cell must be touched; and this is a point on which Vulpian, Anstie, and especially Vanlair, have insisted. It is then well understood that if theoretically there exist peripheral neuralgias, yet in order that there may be phenomena of pain the neuralgia must be central.

These preliminaries being settled, we will now enter on the treatment of the neuralgias; but in order to pass in review the numerous therapeutic measures recommended in these cases, I shall be obliged to establish a certain number of divisions. Therapeutic agencies applicable to neuralgia may be classed in two distinct groups—the one addressed to the symptom pain which characterizes the neuralgia, this is symptom treatment; the others are directed to the cause of the pain, this is pathogenetic treatment.

Symptom treatment is subdivided into three groups. In the first are placed all medicaments which act by modifying more or less profoundly the functions of the nervous system, and which are described under the name of hypnotics, anæsthetics, analgesics, anti-neuralgics, etc., such as opium, chloral, chloroform, and aconite. The second group contains medicaments which act by substituting for the pain, another pain, and constitutes revulsive or substitutive medication; we place here vesicatories, cauterizations, etc. The third group contains substances which experience has shown to have powerful anti-neuralgic properties, but the mechanism of whose action is not known, such as turpentine, guarana, and sulphate of copper.

I shall first briefly examine the medicaments of the three divisions of the first group, then the bases of the pathogenetic medication, and finally shall take up, in order, certain forms of neuralgia and their treatment.

In the first group stand prominently forth, opium and its derivatives, chloral and chloroform, aconitine and gelsemine, electricity and hydrotherapy.

Opium is undoubtedly one of the means the most

[1] Translated from advance sheets by E. P. Hurd, M.D., of Newburyport, Mass.

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employed in the treatment of pain in neuralgia, and since the introduction into medicine, by Wood, of hypodermic injections, it may be truly said, that it is on subcutaneous injections of morphia that we rely most to subdue pain, or at least to obtain temporary alleviation.

Is it necessary to make the subcutaneous injection *in loco dolentiæ?* Some, and Chouppe in particular, have answered this question affirmatively. I do not think so. If morphine relieves neuralgia, it is not by any local action on a nerve or nerves in a painful region, but by modifying the sensory nerve-centre; the anodyne must first enter the circulation and be carried to the heart, then sent to the cerebro-spinal axis, before it can have the effect sought. The injection then may be made with equal advantage on the thighs, hips, or the fleshy part of the arm, wherever it can be made the most easily.

You may use Magendie's solution made with cherry-laurel water, or any other good menstruum that will not ferment; the average dose being one or two centigrammes. Constantine Paul recommends water that has been boiled. If you use common water, mucedines will be sure to form in your solution after a few days. Bardet has shown that these aid in the transformation of morphia into apomorphia.

These subcutaneous injections, which have supplanted all other modes of administration of opiates in the treatment of neuralgias, have one great disadvantage, and only one—the patient easily becomes habituated to them, and resorts to the hypodermic syringe, not to obtain relief from pain, but an excitation which henceforth becomes a necessity. That will be a curious chapter of pathology, which shall describe the progress of morphomania in our times; it will show that it has almost always been the case that inveterate and deplorable habits of morphia-taking have had their origin in the use of hypodermic injections of that anodyne in the treatment of neuralgia.

When the hypodermic method was first introduced, Wood, in Great Britain, and Behier, in France, employed atropine, but this medicament was soon abandoned on account of the dangers which it presented, and the delirium which frequently followed its use. At the same time you may derive benefit from the association of the two medicaments, and I recall to your remembrance the formula which I habitually use:

℞.—Sulphate of atropine, . . 0.01 (gr. 1/6).
Hydrochlorate of morphia, . 0.10 (gr. iss).
Cherry-laurel water, . . 20.00 (℥vss).—M.

A cubic centimetre (15 m.) or about a syringeful of this solution, contains half a milligramme ($\frac{1}{128}$ gr.) of atropine, and half a centigramme ($\frac{1}{12}$ gr.) of morphia.

It has been asserted that injections of plain water would relieve pain as effectually as injections of morphia, and Dieulafoy has given his support to this statement. I showed in 1872 that only injections of morphia can be relied upon to calm the pain, and that any occasional anodyne effect produced by injections of water, is due to distention or rupture of certain muscular fibrillæ.[1]

Chloral is one of the best anodynes that we possess; it has only one inconvenience, that it cannot be administered a great while to the same individual without determining by its caustic and irritant action a chronic inflammation of the digestive tube. Therefore, I have recommended, in order to obviate this inconvenience, to give the chloral preferably by enema; the following combination administered *per rectum* will do good service. Take the yolk of one egg, beat it up in a gill of milk, and dissolve one or two grammes of chloral. Administered in this way, the chloral, however, in a few days irritates the rectal mucous membrane, and must be suspended

Certain derviatives of chloral have been proposed as a substitute, and croton-chloral has been especially vaunted by Liebreich, Benson Baker, and others in Germany and in France. Croton-chloral and butyl-chloral are given in the dose of thirty centigrammes to one gramme every three hours, till the paroxysm disappears; despite the advantages which this remedy possesses in tic douloureux, it is little used in the treatment of neuralgia.

Chloroform is also in current use in the treatment of neuralgia; it is employed almost exclusively locally, occasionally, however, by inhalation in the case of neuralgias that are horribly painful. Locally it is used in the form of liniment, or injected subcutaneously. Aran, Dupuy, De Frenel, and others, advised a long time ago to treat neuralgias locally by compresses wet with chloroform, and recently Brown-Séquard has experimentally demonstrated the analgesic action of these local applications. But it is especially in hypodermic injections that this medicament gives good results.[1]

Introduced into therapeutics by Roberts Bartholow, of Philadelphia, then by Doe, of Boston, the usage of subcutaneous injections of chloroform did not become general in France till Ernest Besnier made his favorable report. I have myself made trial of this method in my hospital practice, and my pupil, Henry Fournier, has given the results in his thesis. In order that these injections of chloroform may do good, they must be made in the painful region, and they must be introduced deeply in the cellular tissue, or muscular interstices; neglect to follow this rule has resulted in accidents, and in failure. Plunge your needle, then, perpendicularly into the tissues, and carry it as far as the guard at the proximal extremity. This mode of treatment is hardly applicable to any form of neuralgia except sciatica.

By these subcutaneous injections of chloroform you may obtain two different results—either disappearance of local pain after small doses, or general effects, characterized by sleep, when you inject two, three, four, and even ten grammes of chloroform, without, however, at any time obtaining surgical anæsthesia. Why do you not obtain complete anæsthesia? It is because chloroform, when introduced beneath the skin, is absorbed by the veins and lymphatics, and carried to the lungs before entering the arterial system to be distributed to the brain and other nerve-centres, and in the lungs it is in large part eliminated. What remains uneliminated, and such portion of the vapor of the chloroform as, after being expired, returns to the lungs in the air of inspiration, passes into the blood of the aortic system, and is carried to the brain, where it has

[1] The fact that intense pain is sometimes relieved by a hypodermic injection of water, has been attested by a great many observers. Gubler, who has many times witnessed the phenomenon, explains it as the result of a local infiltration, not only of the cellular tissue, but of the histological elements as well. There are degrees of hydration of the tissues, and there is a marked relation between this hydration and divers modes of sensibility; witness cases of anasarca, in which the infiltrated tissues are relatively insensible, as you will see by testing the sensibility over the œdematous parts, and over the surrounding region not invaded by the anasarca. The aqueous injections succeed the best, according to Gubler, in those neuralgias which are called congestive.—*Vide* Gubler, *Cours de Therapeutique*, p. 238, Paris, 1880.

The whole subject is far from being clear.—TRANS.

[1] Roberts Bartholow, "On the Deep Injection of Chloroform," in the *Practitioner* for 1874. Ernest Besnier, "On Subcutaneous Injections of Chloroform," in *Bull. de Therap.*, t. xciii., p. 433. Stedmann, "Eight Cases of Neuralgia Treated by Deep Injections of Chloroform," *Boston Med. and Surg. Journ.*, May 24, 1877. Dujardin-Beaumetz, "Des injections hypodermique de chloroforme," *Bull. et mem. de la Soc. de Therap.*, t. v. pp. 39, 40, 1878. H. Fournier, *These de Paris*, 1878.

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a more or less sedative effect, according to the quantity which has escaped the eliminating action of the lungs. In producing surgical anæsthesia by inhalations of chloroform, you practically suppress the principal source of elimination, and charge the arterial blood with the toxic agent.

By the side of these medicaments, and even at their head, we must place aconite and aconitia, which give marvellous results in certain varieties of neuralgia, and especially in facial neuralgia of the congestive form. Experiments have shown that aconitia has an action quite special on sensory innervation, and in particular on that of the trifacial, and it is this action which Oulmont, Séguin, Franceschini, and Laborde have utilized in the treatment of neuralgia. You can then make use of the crystallized nitrate of aconitia, and as there exist impure aconitias in commerce, you would do well to order the preparation of Duquesnel. The granules of Duquesnel contain each one-quarter of a milligramme of aconitia; you may give one of these granules every three hours till eight are taken in the course of twenty-four hours.

Crystallized aconitia is one of the most energetic poisons; and you ought rarely to exceed the dose of two milligrammes a day; there are some patients even in whom, owing to their susceptibility to the drug, this dose cannot with safety be reached. You ought then to suspend the medicine when the patient complains of an uncomfortable sensation of constriction of the mouth and eyes, and tingling in the tongue, which are the first toxic manifestations. When you cannot obtain aconitia, you can employ the tincture of the root (the tincture of the leaves is not to be relied on). Of the common tincture of aconite root, you may give ten drops every three hours. [Fleming's tincture is much stronger, and should not be given in a larger dose than five drops, at least as a commencing dose.] The tincture is much inferior to aconitia, at least, in the treatment of facial neuralgia. I cannot too highly commend the alkaloid in prosopalgia; since I have been in the habit of using it, I have obtained cures in a great many cases, and always an amelioration.

In my judgment gelsemium sempervirens and gelsemin merit a place far below aconite and aconitia. In the rich, moist soils of Virginia and the Carolinas grows a climbing plant with yellow flowers, called the yellow or Carolina jasmine; it is the gelsemium sempervirens. From the root and stalk is obtained an alkaloid called gelsemin, discovered by Fredigke. A tincture is made from the root, which is given in the dose of ten drops every two hours. This tincture has been made the subject of experimentation by Wickham Legg, Cordes, of Geneva, Hill, of the United States, Spencer Thompson, Sidney Ringer and William Murrell, Massini, Suraszc, Roberts Bartholow, and others, who have obtained remarkable results in the treatment of facial neuralgia, and neuralgias especially of the paroxysmal or intermittent form.

I was the first in France to experiment with this tincture, and my pupil, Dr. Eymery-Heroguelle has reported the results in his thesis of graduation (August, 1877). I obtained certain favorable results from the tincture, but I found it an uncertain medicament. Moreover, the tinctures were of no definite and uniform strength, a fact due probably to the circumstance that in making the fluid preparations all parts of the plant, as well as the roots, were used, or possibly because pains were not always taken to obtain the fresh, green root; as a consequence, the same doses sometimes gave toxic effects, sometimes no effect at all. In one of our patients, symptoms of poisoning, of the utmost gravity, from the medicinal use of the tincture were noted. Such toxic phenomena have already been often reported as the result of the free use of this tincture, and Hanna, Freeman, and Courtright have even known death to follow. I have, therefore, abandoned, in the treatment of neuralgias, the use of this drug, as being uncertain and dangerous. These inconveniences may be avoided by the use of gelsemin; but this alkaloid is little known, having been as yet little studied, and seems much inferior as an anodyne to aconitia.[1]

In the same group of medicaments, we must place electricity and hydrotherapy, which modify more or less directly the nervous system.

Electricity is one of the most active agents in the treatment of rebellious neuralgias. In my lecture on "Medical Electricity," I told you that electricity modifies the molecular state of nerves during its application, and sets up polar currents in the nerves which prolong its effect; you need not be surprised, then, at its beneficial effect in neuralgia.

You may make use of faradic or galvanic currents; the latter are much to be preferred. The negative pole is applied near the nerve-centre, the positive pole (which is the truly sedative pole) may be moved over the different painful points of the affected nerve. When you are treating tic douloureux, your currents should be very mild, and should not exceed three or four milliampères. In fact, too intense galvanic currents applied in the region of the encephalon, determine two effects which we ought to avoid—syncope on the one hand, and certain photopsias on the other; it is well, then, to use very light currents.

In the case of sciatica, your current should be much stronger; twenty milliampères, and even more. When treating of electricity in medicine I gave you a definition of this term (milliampère), and told you that it was the basis on which are graduated all our modern galvanic machines and the only scientific means at our command of comparing observations relative to the medical application of electricity. In the treatment of neuralgia it is necessary to be precise as to the quantity, if we would employ electro-therapeutics to advantage.

As for the duration of the current, authorities are far from being agreed, some recommending prolonged, others very short sittings. I think, with Apostoli, that the duration of the *séance* cannot be fixed in advance, and that the passage of the current should be continued till the pain disappears, or at least till some mitigation is obtained.[2]

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[1] Numerous fatal cases are on record in American journals of poisoning by gelsemium. Thus, Pinkham's case in the *Boston Med. and Surg. Journ.*, for 1876; that of Boutelle, of Boston, in the same journal; that of Wormley, in the *Amer. Journ. of Pharmacy*, 1870; also that of Seymour, in the *Therapeutic Gazette*, for 1882. Freeman's three cases (referred to in the text) occurred in 1860; death occurred from taking one or more (in one instance, less than one) teaspoonful doses of the tincture. I myself came near dying four years ago from the effect of a drachm dose (given through mistake) of Wyeth's fluid extract of gelsemium; there were dimness of vision and double vision, irregular breathing, the most alarming prostration, and general muscular paralysis; the use of electricity and stimulants (capsicum, quinine, and strong coffee) brought me out of danger in a few hours. The toxicological history of this drug is well summed up by Ringer, in the *Lancet* for 1878.

Despite the danger attending the use of gelsemium in large doses, I have found moderate doses (five to ten drops of the tincture every two hours) a charming remedy in facial and especially dental neuralgias.—TRANS.

[2] In the treatment of neuralgia, faradic, galvanic, or static electricity may be employed.

Induced currents.—Becquerel was one of the first to recommend the use of very strong and rapid currents. He advised the extra current and a wet sponge for electrode, and directed to apply the positive pole over the part of the nerve nearest the nerve-centre, and the negative pole over the divisions of the nerve; to be passed to and fro. *Seances* of five minutes' duration.

Duchenne preferred the revulsive method—the painful region to be electrified by the metallic brush; a very strong current with

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It is in proceeding in this way that Remak, Onimus, Bouchaud, Craddock, Ouspenski, etc., have obtained results that are truly marvellous in the treatment of obstinate neuralgias, and especially in neuritis. I, myself, employed as far back as 1872 these constant currents in the treatment, more especially, of sciatica, and one of my pupils, Dr. Cado, has given the results (often most gratifying) in his thesis.[1]

But if electricity, methodically employed, may mitigate and cure neuralgic pains, you should repudiate altogether those "electric" (?) chains, belts, and pads, which you see advertised for pain, and especially for the cure of migraine. These contrivances are so badly constructed that they are incapable of generating any current, and can have no effect at all, unless a moral effect by acting on the imagination of the patient.

Hydrotherapy, like electricity, is one of the most active agencies in the treatment of neuralgia. Cold water acts, not only by modifying directly the neurility of sensory nerves, but also in promoting healthy circulation and nutrition, and I know of no better means of arresting a paroyxsm of neuralgia, or even of preventing the return of an attack than the douche.

Next in order come the surgical measures, which have a direct action on the painful nerve. These are: 1. Neurotomy; 2. Neurectomy; 3. Nerve-stretching.

1. The section of nerves for the relief of neuralgias is quite an old operation, having been performed more than a century ago by Maréchal in numerous cases. The results are generally temporary and disappointing. Simple division of the diseased nerve is not enough, and neurotomy has given place to (2) neurectomy, which consists in resection of a portion of the nerve; this operation gives permanent cures, the *rationale* of which is easily understood when you recall to mind the way nerves undergo regeneration. This method, which is only applicable to regions where the sensory and motor nerves are distinct, as in the face, has been signally successful in those painful affections of the fifth nerve known as tic douloureux, and I have a case in point to relate which I am sure will interest you all.

The subject, a patient of mine, was head-clerk in the Hotel Monnaies. This man, for three years, had been a sufferer from a most atrocious facial neuralgia. All medical means had been employed without any decided amelioration. Opium, aconitia, electricity, had failed to give more than momentary alleviation, they could not prevent the return of the cruel paroxysms; the poor man, in despair of a cure, was meditating suicide. Such cases are not exceptional, and you will meet with them in your practice.

It was an infra-orbital neuralgia—perhaps one of the most painful of the facial neuralgias. I advised resection of the upper maxillary nerve, and the operation was performed by my colleague and friend, Terrillon. The nerve was sought at its point of emergence from the foramen, and followed into the floor of the orbit; the terminal portion of the nerve, to the extent of two or three centimetres, was excised. From the moment that the man recovered consciousness from the ether to the present time, now two years, he has had no return of the pain, and the triumph of the operation is complete.

Is the operation always so successful? Unfortunately, no; and many instances are on record where branches of the trifacial have been resected for painful affections, and with the utmost skill and thoroughness, with no result but aggravation of pain to the patient and mortification to the surgeon. In fact, in these cases the neuralgia was undoubtedly central, and it is easy to see that remedial measures which are efficacious when the cause of the disease is peripheral, are useless, and worse than useless, when the prosopalgia owes its origin to some morbid condition of the encephalic trigeminus centre.

Neurotomy and neurectomy being, as we have seen, applicable only to facial neuralgias, it has been proposed, in cases of mixed nerves, where the operation of nerve-section would inflict on the patient a motor paralysis almost as distressing as the neuralgia, to resort to another operation, of quite modern origin, known as nerve-stretching.

Practised for the first time in 1872 by Billroth and Nussbaum, it was not till 1876 that this operation found favor with French surgeons, and Verneuil was the first in our country to attempt nerve-stretching, and this for traumatic tetanus. Since then the operation has become general throughout Europe. Chauvel has given us a very complete *résumé* of the history of this operation in Europe down to 1881, and from his monograph, we find that fifty-two cases of neuralgia had been treated in this manner; in thirty of these cases a permanent cure was obtained, in twelve there was a decided amelioration, and ten were unsuccessful. I have not time to enter into these details, which enable us to appreciate, at its just worth, this therapeutic measure, and which consists, as you well know, in exposing the trunk of a nerve and making more or less forcible traction on the same.

Generally, after the stretching the pain disappears, but it is liable to return in a short time; yet in a good many cases the benefit obtained is permanent.

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rapid interruptions. This is the method of "electric fustigation" employed by Tripier.

Galvanic currents.—Magendie employed electro-puncture with the galvanic current; this process is now abandoned.

Remak, Ramios, Rosenthal, and Meyer make use of a centrifugal or descending current; positive pole in the vicinity of the nerve-centre, negative pole at the periphery.

Onimus also uses the descending current; placing the positive pole over the point of emergence of the nerve, the negative pole over the terminal branches, and passing for fifteen minutes a current of thirty elements of Remak. He advises weak currents, but of long duration.

Niemeyer, Tripier, Apostoli, and Bardet, on the contrary, recommend to apply the positive pole over the *point douloureux*, and this is the practice of most electro-therapeutists at the present day.

Static currents.—Arthuis has treated with great success a large number of neuralgias by Franklinic electricity. He employs the electric bath, and the electric brush, which is moved over the branches of the painful nerve.

As for the treatment of certain forms of neuralgia—facial neuralgia and gastralgia—this is the procedure of Bouchaud, Craddock, Apostoli, and Beard.

Apostoli employs, in the case of gastralgia, positive polar electrization of the pneumogastric: positive electrode over the pneumogastric, negative pole in the hand of patient.

Bouchaud treats odontalgia by a constant current of ten elements; positive pole on the face as near as possible to the painful nerve, negative pole on the antero-lateral region of the neck. In a few minutes' time marked relief is generally obtained.

Craddock has used the constant current with success in neuralgia of the face. Beard has long insisted on the treatment of neuralgias by electricity. In facial neuralgia, galvanization and faradization rapidly cure, but care and prudence in the use of these means are necessary. In gastralgia, galvanization gives complete success; in sciatica, ameliorates or effects a cure. In the latter malady, Beard recommends to apply one of the poles to the vertebral column at the point of emergence of the nerves; the other pole to be moved up and down the sciatic nerve, and the current to be especially directed to the *points douloureux*. (Beard on the "Treatment of Neuralgia by Electricity," in the *Practitioner*, 1873; and in Beard and Rockwell's *Medical Electricity*. Remak on *Galvano-therapy*, 1860. Onimus and Legros, *Medical Electricity*, Paris, 1872. Bouchaud on "Constant Currents in Odontalgia," *Bull. de Therap.*, tome lxxxv. p. 1. Craddock, "Trigeminal Neuralgia Treated by the Constant Current," *Practitioner*, 1873. Tripier on "Electric Revulsion," *Courrie Medical*, 1870. Apostoli, "Treatment of Gastralgia," *Bull. de Therap.*, 1882, etc.)

[1] L. Cado, "On the Treatment of Sciatica by Galvanic Currents" (*Th. de Paris*, 1872).

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How does this elongation of nerves operate in the alleviation of pain? This is a question which we are unable to answer. The more probable supposition is, that the stretched nerves have a reactive influence on the sensory spinal centres, an influence which somehow favorably modifies the molecular state of the cells; this view receives support from the fact that very powerful tractions often do the most good.

Billroth has of late advised to practise what he designates subcutaneous elongation of the sciatic nerve. Struck with the distribution of nerves and bloodvessels in the inferior member, which pass, the former to the posterior part of the thigh, and the latter to the anterior portion, Billroth thought that by flexion of the thigh on the pelvis he might, without injuring the vessels, make energetic traction on the sciatic nerve. This is his manner of proceeding: The patient being completely relaxed from chloroform, the thigh is flexed on the abdomen, and the leg is forcibly *extended* on the thigh till the toes almost touch the head of the patient. This second part of the operation demands great care in its performance. The biceps, semi-tendinosus, and semi-membranosus muscles powerfully resist this movement, and too much violence would result in rupture of these muscles or their tendons, or even dislocation of the head of the femur. After this flexion and extension, the limb is placed in its natural position.

You have seen me this year perform this subcutaneous elongation in three cases. In one, the patient was unable to walk, from an obstinate sciatica, which had lasted three months; here, subcutaneous nerve-stretching brought immediate, permanent cure. In the other two, the benefit was temporary. You remember, too, that it was in arranging the preliminaries for an operation of this kind, that we met with that lamentable accident which caused such consternation among us; I refer to the sudden death from chloroform, whose details have been published by the medical press.[1]

Nevertheless, the misfortune that then happened to us does not militate against the utility of an operation which has now been so often performed with benefit. I believe, then, that in sciaticas rebellious to all therapeutic measures, we are warranted in attempting subcutaneous nerve-stretching, which is doubtless a safer operation than that of cutting down on the nerve, as is usually done, at the junction of the lower and middle third of the thigh, lifting out the nerve with the forefinger, and pulling on it with a force of forty or fifty pounds.

In my next lecture, I shall finish what I have to say on the treatment of neuralgia.

ORIGINAL ARTICLES.

A YEAR'S WORK IN OVARIOTOMY.

BY WILLIAM GOODELL, M.D.,
PROFESSOR OF CLINICAL GYNÆCOLOGY IN THE UNIVERSITY OF PENNA.

DURING the past year I have had twenty-five cases of completed ovariotomy, with six deaths. In not a single instance have I declined to operate; for I have given every woman her chance; but I had two cases which I did not complete. One was a patient of Dr. Charles A. Currie, of Germantown. The cyst contained pus, and communicated with the bladder by a very small opening. On January 24th, after making an exploratory incision, and finding that the cyst was adherent at every point, I did not attempt its removal; but I simply emptied it and put in a drainage-tube. The recovery was slow, but without a bad symptom; and the woman left the hospital in about two months. The other case was a patient of Dr. Emil Fischer. When I was called in, she had had septic fever for six weeks, and I found the cyst tympanitic at every point. She was bed-ridden; her temperature was 102.8°, and her pulse 140. She also had a bed-sore, night-sweats, a red-raw tongue, and incessant vomiting. Notwithstanding her desperately low condition, I had her removed to my private hospital, and decided to give her a chance—hoping against hope that there might not be any other complications. On February 21st, with the help of Drs. Emil Fischer, B. F. Baer, T. V. Crandell, and W. L. Taylor, I began the operation. The cyst was universally adherent, and as soon as I began to enucleate it, I saw that my patient would die on the table. So I contented myself with opening the cyst, cleansing it out, and putting a glass drainage-tube in. The contents of the cyst were fairly rotten, and the puff of fetid gas which escaped from the incision was overpowering. The relief, however, was too late, and the lady died fifteen hours later.

I had also in my private hospital a successful case of nephrectomy; the first operation of the kind ever performed in Philadelphia. The patient was a lady from Salt Lake City, brought to me by Dr. J. F. Bird, of Philadelphia. I at first mistook the cyst of the kidney for one of the ovary, but was soon undeceived. The operation was not an easy one, for I had to strip off the investing coat of the peritoneum, to which the intestines were adherent. On account of a very severe bronchitis and an aphthous mouth and throat, the convalescence was slow; but the lady ultimately got well. This aphthous condition of the mouth and fauces was a very remarkable one. I have seen nothing like it, and I cannot help thinking that the additional work thrown on the remaining kidney must have had something to do with it.

In the following table of twenty-five cases a very unusually large number of double ovariotomies will be noted. There are twelve of them, with three deaths. Of these fatal cases, one, a girl aged 17, died in my private hospital, from acute peritonitis. The other was also a young girl, aged 16, who was operated on in a private-room of the Hospital of the University of Pennsylvania, and died from septicæmia on the ninth day. The third was operated on at home, and died either from shock or from œdema of the lungs. She was in a very feeble condition, and the operation, from pelvic and parietal adhesions, was difficult and tedious. The ether in this case acted badly; the patient becoming cyanosed, and showing afterwards bronchial irritation. I did not see her after the operation. The cysts in these two girls were small, and without serious adhesions. I was greatly disappointed at the result.

From this experience, I am disposed to think it better in such cases to wait until the tumor has developed, and by pressure has so altered the character of the peritoneum as to lessen its vulnerability.

[1] *Vide* Comptes Rendus de l'Academie deMédecine, April, 1882.

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Total Number,	Name and Residence of Previous Medical Attendant.	Age,	Condition,	No. of Children,	Previous Tappings.	Date of Operation.	Place of Operation.	Adhesions,	Ovary Diseased,	Size and Nature of Tumor,	Length of Incision.	Drainage,	Result,	Remarks.
61	Dr. R. P. Harris, Philadelphia.	50	M	1		Jan. 10.	Home.	Omental.	L	20 lbs.	Short.	None.	Recovery.	During the removal of cyst, it burst, and some of the contents escaped into abdominal cavity.
62	Dr. Robert Burns, Frankford, Pa.	56	S		1	Jan. 21.	"	Omental and intestinal.	L	40 "	Long.	"	"	Semi-solid multilocular cyst surrounding descending colon, to which it was attached.
63	Dr. M. M. Lewis, Alexandria, Va.	36	M			Jan. 28.	Private Hosp'l.	Broad ligament and pelvic.	L	3 "	"	"	"	A small cyst removed by enucleation from broad ligament. A difficult operation.
64	Dr. H. H. Muthersbach, Beech Creek, Pa.	31	M			Feb. 10.	Univers. Hosp'l.	Omental and parietal.	R L	112 "	Short.	"	"	Woman weighed 72 pounds after the operation; cyst, 16 pounds; fluid, 96 pounds.
65	Dr. T. J. Yarrow, Philadelphia.	65	M	4		Feb. 14.	Home.	Parietal and broad ligament.	L	10 "	"	"	"	A tumor of omentum, probably malignant, was also found, but could not be removed.
66	Dr. H. W. Newcomet, Philadelphia.		M			March 1.	Univers. Hosp'l.	None.	L	10 "	Long.	"	"	Tumor consisted of a cluster of large cysts, containing a clear fluid.
67	Dr. T. D. Dunn, West Chester, Pa.	27	S			March 1.	"	"	L	20 "	Short.	"	"	Oligo-cyst, with clear, limpid fluid.
68	Dr. F. B. Kellar, Pottstown, Pa.	33	M		5	Mar. 11.	Home.	"	R L		"	"	"	Abdomen filled with liquid; no cyst, but a cauliflower-looking papillomatous degeneration of right ovary.
69	Dr. G. M. Schillito, Alleghany, Pa.	16	S			Mar. 13.	Univers. Hosp'l.	Pelvic and to br. ligament.	L R	15 "	"	"	Died.	Died on ninth day from septicæmia.
70	Dr. Armstrong, Camden, N. J.	30	M	4	2	Mar. 23.	"	Universal.	R	80 "	Long.	Tube.	Recovery.	Several cysts burst into cavity of abdomen during the operation. Taken home on April 9th, and died on 23d from "vomiting."
71	Dr. W. Goodell, Philadelphia.	39	M	2	1	April 15.	Home.	"	L	20 "	"	"	Died from Shock.	Was delirious and in last stages of septicæmia when operated on.
72	Dr. C. McCall, Philadelphia.	56	S			May 4.	Univers. Hosp'l.	"	R	25 "	"	None.	Recovery.	
73	Dr. Shearer, Sinking Spring, Pa.	34	S			May 17.	Private Hosp'l.	None.	R	20 "	Short.	"	"	
74	Dr. De Schweinitz, Philadelphia.	37	M	3		June 15.	Univers. Hosp'l.	"	R L	20 "	"	"	"	
75	Dr. N. F. Ehrenfeld, Indiana, Pa.	46	W	2	5	June 15.	"	Parietal.	R	70 "	"	"	"	
76	Dr. D. Miller, Huntingdon, Pa.	32	M			June 28.	"	Omental.	R L	65 "	"	"	"	
77	Dr. G. R. Robbins, Hamilton Sq., N. J.	44	W	2		Sept. 6.	Private Hosp'l.	None.	L R	20 "	"	"	"	
78	Dr. B. F. Baer, Philadelphia.	22	S		2	Sept. 19.	Univers. Hosp'l	"	L R	10 "	"	"	"	

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Total Number.	Name and Residence of Previous Medical Attendant.	Age.	Condition.	No. of Children.	Previous Tappings.	Date of Operation.	Place of Operation.	Adhesions.	Ovary Diseased.	Size and Nature of Tumor.	Length of Incision.	Drainage.	Result.	Remarks.
79	Dr. T. B. Hayes, Bellefonte, Pa.	65	W		1	Oct. 5.	Univers. Hosp'l.	None.	R	25 lbs.	Long.	None.	Died.	Died from uræmia, kidneys being greatly diseased.
80	Dr. J. W. Anawalt, Greensburg, Pa.	28	M			Oct. 21.	Private Hosp'l.	Uterine and pelvic.	R L	10 "	Short.	"	Recovery.	Right ovary without pedicle, and adherent to womb; left ovary embedded in broad ligament.
81	Dr. C. M. Gandey, Ocean View, N. J.	42	M	3		Oct. 22.	Home.	None.	L R	15 "	"	"	"	
82	Dr. W. Goodell, Philadelphia.	51	M	6		Nov. 13.	Private Hosp'l.	Omental, pelvic, uterine.	L R	40 "	Long.	"	"	Neither ovary had a pedicle, and each was so adherent to womb that uterine tissue was ligated.
83	Dr. C. W. Gerry, Trenton, N. J.	43	S			Nov. 14.	Univers. Hosp'l.	Omental.	L	30 "	"	"	Died.	A pedunculated fibroid also removed. Patient died on eighth day from acute mania.
84	Dr. L. P. Morawetz, Baltimore, Md.	17	S			Nov. 19.	Private Hosp'l.	None.	R L	15 "	"	"	"	Died from acute peritonitis.
85	Dr. J. Simpson, Philadelphia.	31	M	2		Dec. 24.	Home.	Parietal, omental, and pelvic.	L R	50 "	"	"	"	Was greatly debilitated, and died from shock.

In all these cases of double ovariotomy, the second ovary was removed because, in every instance, it showed evidences of cystic degeneration. But, as my experience ripens, I feel more and more inclined to extirpate both ovaries in certain conditions. For instance, in future, I shall remove both ovaries whenever the womb contains a fibroid tumor. By so doing, the growth of the fibroid will be checked. Again, whenever the woman has passed the climacteric, I deem it good policy to remove the second ovary, however healthy it may be, in order to take away the chance of its future degeneration.

With regard to the three other fatal cases, a word is needed. Case 71 was in every sense of the word a forlorn case, and operated on from a sheer sense of duty. She was thirty-nine years old, and had borne two children. Ten years ago the tumor was first discovered, but it remained quiescent until two years ago, when it began to grow rapidly, and she came on from Windsor, Vermont, with very indefinite ideas of having something done for it by internal medication. I first saw her on March 27th, and found her bed-ridden with diarrhœa, rectal tenesmus, high temperature, rapid pulse, and night-sweats—and I diagnosticated a suppurating cyst. As she was unwilling to be operated on, even to be tapped, I put her in charge of Dr. T. V. Crandall, who did all in his power to control these symptoms and get up her strength. She, however, became worse; delirium set in; her pulse ranged from 120 to 140 beats; her temperature from 101.5° to 103°. As she plainly had but a few days to live, I aspirated on April 7th, emptying four cysts from two different punctures. The stench from the putrid fluid was abominable. This operation gave her some relief for a few days, but she soon became worse than before. So, on April 15th, as a forlorn hope, I decided to remove the cyst at her boarding house, as she was too ill to be removed to the hospital. Drs. B. F. Baer and T. V. Crandall, and my son aided me in the operation; and it was witnessed by Dr. J. H. Rogers, of Sag Harbor, N. Y., and Drs. J. V. Shoemaker, W. Cruice, Vanderbeck, Milliken, and Schwenck. The tumor was a polycyst of the left ovary, with also many exogenous, or outside cysts, each one containing putrid matter. The cyst was adherent at every point up to the pedicle itself, which was short but slender, was much thickened, and glued wholly to the tumor. In breaking up the adhesions in each flank, an abscess outside of the tumor was torn open, and the contents escaped into the peritoneal cavity. Some of the outside cysts also burst and emptied themselves into the same cavity, giving out a sickening stench. The reflected fold of the peritoneum, together with the bladder, was carried up on the cyst-wall as high as the navel, and needed very careful dissection. The right ovary could not be found. Several times during the operation the woman seemed about to die on the table, but she was resuscitated by subcutaneous injections of ether and brandy. She subsequently rallied enough to converse with her friends, but she died about midnight from shock. Altogether, this was the most formi-

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dable operation that I have yet performed, and it is a question in my mind whether, under the circumstances, I ought to have undertaken it; but, knowing that it was her only chance, I felt it my duty to give it to her. Case 79 died comatose, in about forty hours after the operation, which was performed at the Hospital of the University. There were no complications other than the long incision needed for the extraction of a large multilocular tumor, too solid to be reduced in size. There were from the first, coma and suppression of urine. At the autopsy the liver was found to be fatty, the kidneys greatly contracted, and the spleen hypertrophied and breaking down. Her advanced age and the carbolated spray had probably something to do with the unfortunate result. The death of Case 83 remains yet a mystery to me. The operation was performed at the hospital, and was unusually easy. The tumor consisted of a thick-walled, partly solid multilocular cyst of the left ovary, and was nourished more by the omentum, to which it was attached, than by a very slender and long pedicle. She did extremely well for six days; then acute mania set in, from which she died twenty-four hours later. The autopsy revealed no cause whatever for this unexpected death, and I am disposed to attribute it to embolism. She had multiple uterine fibroids, and one of them, as large as an apple and pedunculated, I removed, but I do not think this had anything to do with the result.

A few words about Case 70 are needed. At the time of the operation she was much emaciated; very feeble, and greatly distended by eighty pounds of fluid. The sac had hepatic, omental, intestinal, pelvic, and parietal adhesions, and she narrowly escaped dying on the table. For several days she lay in a critical condition; then she slowly began to mend. She was fairly convalescent when she became homesick, and on the eighteenth day after the operation insisted upon being taken to her home in Camden, New Jersey. A year later I learned that she died from "vomiting" fourteen days after her removal. She was a homœopath, and one of her reasons for going home was that she objected to our medicines.

The results of my cases are not as good as those of British ovariotomists; but these gentlemen do not publish their uncompleted operations, nor the cases on which they decline to operate. Without these data, no just estimate can be made of individual success. My statistics, however, compare very favorably with those of the Vienna General Hospital for 1881. During that year "ovariotomy was performed sixty-four times, with thirty-eight recoveries, twenty-five deaths, and one woman discharged with marasmus."[1]

The chief lessons which I have learned from my experience during the last year, are: First, to administer ether largely diluted with atmospheric air. Hitherto, I have, in common with most American surgeons, given this anæsthetic by a closed cone, in such a way that the patient breathed her own air over and over again. I am now disposed to think that this is a very unsafe mode, and that to it is due, in a large measure, the alarming prostration of the patient while undergoing the operation. For instance, among the twenty-five cases of last year, Cases 70, 71, and 82, presented such profound symptoms of shock, that the operation had to be suspended until hypodermic injections of brandy and of ether were made, and some degree of reaction had set in. In Cases 70 and 71, it was indeed with great difficulty that the women were kept from dying on the table; while Case 85 clearly died from œdema of the lungs. Now, I do not find such alarming symptoms referred to in any reports of cases by British operators. I am therefore forced to the conclusion, that either under the strain of rivalry they do not operate in very desperate cases, or their mode of administering anæsthetics is a safer one than ours. Fully impressed with this idea, I have lately been using Dr. Allis's improved inhaler, and have thus far found it to act promptly, safely, and economically.

My second lesson is not to include the recti muscles in the sutures which close the abdominal wound. In most cases of ovarian tumor, and especially in those in which the cysts are large, the recti muscles are so widely separated from one another, that they barely come into view, and are not likely to be included in the sutures. But in cases of small cysts, and especially of öophorectomy, the *linea alba*, being then a mere line, cannot always be closely followed by the knife, which is likely to go astray into the sheath of one of these muscles. To get back to the linea alba needs careful dissection, and into the more or less ragged wound thus made, the bellies of these muscles pout. The temptation is so strong to include them in the sutures, that I have hitherto done so. But, finding that abscesses are likely to form in the track of these sutures, I now exclude these muscles.

[1] MEDICAL NEWS, Dec. 30, 1882, p. 745.

THE ABRUS PRECATORIUS (JEQUIRITY) IN THE TREATMENT OF SOME DISEASES OF THE EYE.

BY U. H. BROWN, M.D.,
OF SYRACUSE, NEW YORK.

THE profession are indebted to that indefatigable worker and student, Dr. De Wecker, of Paris, for the introduction into ocular therapeutics of a remedy which has proved itself of great value in the treatment of some of the most intractable forms of eye disease, such as granular conjunctivitis, inveterate pannus, corneal ulcers, etc.

Jequirity, or gequirity, is a shrub, generally known under this name in the north of Brazil, of the class of the dicotyledons, and belongs to the vegetable family of the *Abrus* species.

According to Le Maout and Decaisne (*Traité général de botanique*), the little shrub is original of Africa and tropical Asia, and transplanted to South America. On the other hand, M. Mello e Oliveira, a Brazilian botanist, claims that it is indigenous to Brazil, and non-transplantable. It grows everywhere in Brazil, as well in the highlands as in the interior or on the coast, but is particularly abundant

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in the province of Matto-Grasso, which lies between the basins of the Amazon and the Plata, and in the "midst of its virginal forests, where the hand of agriculture has never penetrated." The root is employed in all the torrid zones for the same use as liquorice. The seeds or beans are red, lustrous, irregularly spheroidal in shape, hilum black, and so hard that they are used for making collars and other ornaments. They are found in a great pod, an inch and a half in length, opening by two valves, and divided into as many cells as there are seeds.

The *Abrus precatorius* has been used for years in certain provinces of Brazil, empirically, as a remedy for "granulated eyes," and came to the notice of De Wecker through a patient who had been cured by its use.

De Wecker began his experiments at his clinique in Paris, and published the results in the *Annals D' Oculistique*, for August, 1882, and has followed it in the December number of the same journal with another article confirming his first experience with the drug.

In preparing the remedy for use, he follows the formula which is used in Brazil, viz., "Triturate 32 well-pulverized seeds, and macerate them twenty-four hours in 500 grammes of cold water. The following day add 500 grammes of hot water. Filter the liquid immediately after cooling."

The effect which is desired from the application of the drug is the excitation of a purulent inflammation of the conjunctiva of an intensity sufficient to destroy the granulations, such a result as is sought for by inoculations with gonorrhœal pus.

De Wecker thinks that jequirity develops a vegetable ferment upon the diseased conjunctiva, which prevents the evolution of new granulations, and is destructive to those already formed. And further, he concludes from his experiments:

"*First.*—That the lotion of the infusion of the seeds of jequirity produces a purulent ophthalmia of a croupous nature, of which one can regulate the intensity according to the number of applications made, and the strength of the remedy which is employed.

"*Second.*—That the cornea does not run the least risk during the development of the purulent condition, as it is only when the ophthalmia has been pushed to the point of a veritable diphtheria that this membrane shows a passing circumscribed desquamation.

"*Third.*—That jequirity ophthalmia *rapidly* cures granulations, and with infinitely less danger and trouble to the patient than inoculations with gonorrhœal pus, for the ophthalmia produced by jequirity disappears of itself in from eight to twelve days, without the intervention of any treatment, by simply confining the patient to a darkened room."

My experience with the drug confirms the report as regards its effect locally and constitutionally. Soon after the application of the jequirity lotion to the inverted lids, sensations of heat and pain are felt, attended with lachrymation; after the second and third applications, made at intervals of from four to six hours, a decided irritation of the ocular and palpebral conjunctiva is produced, followed within the next few hours by a purulent secretion, swelling of the eyelid, together with œdema of the conjunctiva; a false membrane of a whitish color forms upon the conjunctiva. Usually after four or five applications of the remedy a purulent ophthalmia is produced, with its accompanying constitutional symptoms, viz., feverishness, headache, constipation, etc. When the drug has only been pushed to the production of the membrane, these symptoms abate on the fifth day, and the discharge gradually diminishes and disappears on the ninth or tenth day.

That the intensity of the inflammation produced depends upon the strength of the infusion and the frequency of its application, is well illustrated by experiments recently made upon rabbits by Dr. Moura Brazil, of Rio Janeiro (*Annals D' Oculistique*, December, 1882). He employed an infusion of the strength of one gramme to 20 grammes of water, applying it directly to the animal's conjunctiva, and also bandaging the eye with it. The effects were severe from the first, and on the second day there was great œdema of the conjunctiva with violent inflammation, thick false membranes formed, and on the fourth day, the cornea became whitened and rough to the touch; there was a profuse purulent discharge; the lids became greatly swollen, and the parotid and submaxillary glands were greatly engorged, making it difficult for the animal to eat. On the fifth day the false membrane had disappeared, and the conjunctiva was coriaceous. Everything was done to combat the inflammation: cauterizations with argent. nit. (2 grammes to 100 of water); iced compresses of a solution of borate of soda (2 grammes); carbolic acid (50 cent.) in water (500 grammes), and all without benefit. The inflammation progressed; the cornea became sphacelous; the globe of the eye suppurated; the lids were gangrenous; the skin covering them fell off to a great extent, and the submaxillary gland suppurated. The poor victim of this experiment still lived.

That there is danger in the employment of the stronger infusions, is also shown in a little memoir upon the employment of jequirity, published in 1867, by Dr. Castro E. Silva, of Ceara, Brazil, in which he relates several disastrous cases of jequirity ophthalmia occurring in the provinces of Ceara and Piauhy, where the use of the drug is much abused. There one often sees violent inflammation of the lids which extends to the face, neck, and upper portion of the thorax, the submaxillary glands often taking on an intense inflammation, which ends in suppuration.

The popular lotion seems to be the curative one, as can be seen in the following cases in which I have employed it.

Case I.—C. T., aged twenty-four; machinist; came to the Eye and Ear Infirmary in November, 1882, suffering from dense pannus, with granulations of the left eye. The disease had been of three years' duration, and vision was reduced to perception of shadows. He had been treated for six months in Detroit and Milwaukee by oculists of repute, but with little benefit. I treated the case two months, employing the usual remedies; cupri sulph., argent. nit., and iodoform, but with no great

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improvement. He was then admitted to the hospital, and the treatment with the infusion of jequirity was instituted; the effects following its use were the same as already described, and the patient was discharged on the thirtieth day from the commencement of the treatment, with V. $= \frac{20}{C}$, and able to read large print.

CASE II.—Hattie R., aged fifteen; trachoma of three years' duration, has been treated without success during the last ten months; the conjunctiva of both upper and lower lids was covered with large, easily bleeding granulations, separated by deep sulci; left cornea had a thick pannus; sight was reduced in left eye to perception of large objects. Upper half of right cornea was covered with a pannus, and in this eye sight $= \frac{20}{C}$. Jequirity treatment was begun January 10th; and on February 15th the patient left the hospital free of granulations, and the corneæ sufficiently clear to give V. L. $= \frac{20}{C}$, V. R. $= \frac{20}{XL}$.

CASE III.—Katie R., aged nine; inmate of orphan asylum. A case of intractable follicular conjunctivitis of both eyes of five months' standing. Corneæ vascular, V. R. $= \frac{20}{C}$, V. L. $= \frac{20}{CC}$. On the 12th of January, three applications of jequirity were made, and on the following day two more, which were sufficient to develop the purulence with the false membrane. The hypertrophied follicles became paler after the seventh day, and had disappeared altogether on the twenty-fourth day, when V. R. $= \frac{20}{L}$, V. L. $= \frac{20}{XL}$.

CASE IV.—A man, aged forty, came to the hospital in December, 1882, with a subacute vascular keratitis of the right eye, of three months' duration. The bloodvessels on cornea were large; opacity great; superficial marginal ulcer above; conjunctiva of upper lid much swollen, especially at retrotarsal fold. S. reduced to counting of fingers at ten inches. Was treated for one month with eserine, hot aromatic compresses, etc., but with only slight benefit. The jequirity treatment was instituted January 15, 1883, and at this date, one month later, the cornea has cleared so that he has V. $= \frac{20}{C}$.

NOTE.—The infusion should be prepared from fresh beans, as when old they lose their efficacy. Those which I used in the above cases were obtained from "The Pharmacie Robinet," 55 Rue Cherche-Midi, Paris.

UTERUS SEPTUS BI-COLLIS.

BY HOWARD A. KELLY, M.D.,
RESIDENT PHYSICIAN AT THE EPISCOPAL HOSPITAL, PHILADELPHIA.

J. K., a servant, born in Germany, thirty-six years of age, applied at the Episcopal Hospital on the ninth inst. for relief.

She complained of constant pain across the small of the back, following a fall last summer; she also gave a history of severe pains at every menstrual period since the first at fifteen years of age, although regular as to time, duration, and amount of discharge.

The vaginal canal, upon digital examination, is long, and up in the right-hand corner of the cul-de-sac, posteriorly, a small hard os is detected. The cervical canal can scarcely be felt. The fundus uteri is felt through the anterior vaginal wall above the os. No view of the os can be obtained by the shorter Goodell speculum, but while manipulating the instrument for a more satisfactory view, a fleshy column comes into view, lying close against the right vaginal wall. The general appearance of this column—long and narrow in the middle, with broader bases on the anterior and posterior walls, whose fibres arch outwards to the right and left—suggests its being a septum, which is then brought into view with the blade of the speculum on either side. The vaginal cul-de-sac is divided by this septum into two equal parts, having no inter-communication.

Further digital examination reveals at the bottom of each half, lying in the angle between the septum and the *posterior wall*, a small hard os. These are each readily brought into view and embraced by a Fergusson speculum of one-half inch calibre.

The external sexual organs are well developed. The hymen hangs in thick, rosy-red, fringe-like folds which meet in the centre of the canal, not, however, diminishing its calibre.

The free border of the septum lies two and three-eighths inches from the fourchette, just back of the well-marked rugæ vaginæ. It presents the appearance described. On its left border at about the middle hang several small papillary eminences. The septum measures one and three-eighths inch from its free border to the base, where it rounds off to either side to embrace each os.

The cervical canals appear to be well separated. The sound passes two and three-quarter inches anteriorly into each, and upon rotation reduces the flexion of the broad-bodied uterus.

Rectal examination adds nothing of interest.

Jan. 1–9.—Patient is now menstruating freely, and equally from each os; shreds of bloody tissue hanging out of the cervical canals.

She was examined once in Germany, per vaginam, by a physician, who remarked upon nothing unusual. She has never been examined in this country up to the present date. It is interesting to add that she has never experienced sexual desire.

The case has been seen by Dr. Hopkins and by Dr. Morris Lewis, chief of the ward, and it is through his kind permission that I am able to present this report.

HOSPITAL NOTES.

BOSTON CITY HOSPITAL.

Service of W. C. B. FIFIELD, M.D.

NON-UNION OF THE TIBIA AFTER OSTEOCLASIS; RESECTION AND WIRING OF THE BONE; SUCCESS.

(Reported by ROYAL WHITMAN, M.D., House Surgeon.)

THE patient, a girl, five years of age, entered the hospital June 13, 1882, with the following history:

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Since birth her limbs had been slightly distorted, and about two years before her admission to the hospital, her mother, thinking that the deformity was increasing, had taken her to the Children's Hospital, where she was admitted on August 30, 1880. Examination showed more or less bowing of the arms and legs—otherwise the child appeared to be in good condition. Osteoclasis was then performed on the left tibia, which was fractured at about the junction of the lower and middle third. The leg was then straightened and placed in a plaster bandage. On October 10th, the right lower leg and right lower arm were also fractured and placed in stiff bandages. They united in good position in a few weeks. The left leg, however, did not unite firmly, and there was also a considerable projection forward of the tibia at the seat of fracture, and on March 24, 1881, it was again fractured at the point of partial union and the tendo Achillis was also cut. The leg was straightened and placed in a plaster bandage. On April 19th there was no formation of callus. May 24th, there was partial union, but with bowing forward of the tibia. She was then discharged from the hospital, and during the following summer was treated in its out-patient department, the leg being kept in stiff bandages. In November, 1881, she again entered the hospital, and during the following winter was treated with a steel support, an attempt being made to straighten the leg by pressure with pads. On February, 1882, there was no improvement, and she was discharged wearing the apparatus. From this time until she entered the City Hospital, there was no change in the condition of the limb. At the time of her admission, the examination showed the following results: The child was well nourished. Her limbs, other than the left leg, were quite straight, and presented no evidences of the previous operations.

There was a considerable bowing forward of the left tibia, and at the seat of the former operation there was considerable mobility. The child walked with a marked limp and the leg was considerably atrophied from disuse.

On June 13, 1882, Dr. Homans, refractured the leg at the point of non-union, and it was straightened and placed in a plaster bandage.

On July 9th, the plaster bandage was removed, but only a moderate amount of union was found to be present, and the leg showed a decided tendency to return to its former faulty position.

July 15th, Dr. Homans again broke down the adhesions between the extremities of the bones, and the leg was again placed in a stiff bandage. She was kept in bed until August 25th, when she was allowed to get up and to walk about with the leg still encased in the plaster bandage, in the hope that the irritation might cause a firmer callus.

On September 12th, the stiff bandage was removed and the leg was found to be in nearly the same condition as upon her entrance.

And taking into consideration the fact, that the child had been under treatment for more than two years without benefit, and as the leg was much atrophied from disuse, and as there seemed to be no prospect of any immediate improvement, it was decided that a more radical operation was justifiable, and, on October 20, 1882, Dr. Fifield, with full antiseptic precautions, made an incision over the point of non-union; the thickened periosteum was separated from the bone, which was refractured. The bone at this point was found to be in a state resembling chronic inflammation, the bone being thickened and the medullary canal almost obliterated. A thin wedge-shaped portion of bone—the base of which was anterior—was sawed from either extremity of the bones in order to counteract the bowing forward. The extremities of the bone were then firmly united by a strong silver wire. The periosteum was then brought over the bone and held in position by fine catgut sutures. The skin was brought together with several silk sutures. A Lister dressing was applied and the leg was placed in a post-plaster splint. No constitutional disturbance followed the operation. The dressing was changed three days later and the stitches were removed. The silver wire was removed on December 7th, at which time there was firm union, and the leg was in good position. December 25th, the child walked well with slight limp. She was discharged on February 14, 1883. At this time she still retained a slight limp, which was disappearing, the leg was increasing in size, and there was no tendency toward bending at the point of fracture.

This case is interesting, as showing a possible result after the operation of osteoclasis, and also interesting as showing the rapid recovery of the child after the comparatively severe operation.

MEDICAL PROGRESS.

Action of Narcotics.—Brown-Séquard thinks that narcotics exercise a sedative effect only by producing *cerebral inhibition*. Opium, for example, produces sleep, not because it possesses the power of producing sleep, but because it is an energetic excitant of the sensory nerves, from which the clinical fact appears that it is not only necessary to consider beforehand the dose, but also the place of application. In fact, a small quantity of morphine injected into the neck, at the level of the superior laryngeal nerves, produces general analgesia much more effectually than if injected at some other point. In this case the local action of morphine is comparable to that of carbonic acid injected into the larynx. It is doubtless to this same mechanism, excitation of the sensitive nerves, that the cessation of violent attacks of cough is to be explained, after subcutaneous injection of pure water into the front part of the neck.—*Le Progrès Méd.*, March 24, 1883.

Calcification of the Kidneys in Acute Corrosive Sublimate Poisoning.—MM. J. L. Prevost and G. Frutinger have concluded, from numerous experiments on mammalians, with corrosive sublimate, that a true calcification of the kidneys takes place, there being at the same time a decalcification of the bones, so great in two cases, that the epiphyses were movable on the diaphyses. It is often so marked that the kidneys seem petrified. Large doses produced it more readily than a succession of small doses.—*Revue Internat. des Sciences*, February 15, 1883.

Abscess of the Frontal Sinus; Recovery.—This case occurred in the service of M. Marc Sée, at the Municipal Health Hospital, Paris. The patient, æt. 64, had a small tumor, situated at the internal part of the superciliary arch, on the left side. For fifteen years she has been subject to colds in the head, and lately the nasal discharge has had a fetid odor. There is no evidence of scrofula. In September, 1882, vision on the left side became obscure. She suffered, after that, with frontal and temporal headache, and, at the same time, noticed a small tumor, which disappeared on pressure. M. Sée diagnosticated abscess of the frontal sinus, and operated on November 17. He made a small incision parallel to the arch of the brow, and a little above it. The pus having escaped, he scraped the sides of the cavity, and put in two small balls of charpie soaked in chloride of zinc solution, and dressed the wound antiseptically. The charpie balls were retained two days, and then carbolic acid solution injections were made, morning and evening,

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for several days. When last seen, January 15, 1883, the woman was entirely well. Abscess of the frontal sinuses is a rare affection, more especially if non-traumatic, or without syphilitic antecedents. — *L'Union Méd.*, March 13, 1883.

OPERATION FOR DETACHED RETINA.—DR. J. R. WOLFE, F.R.C.S.E., Senior Surgeon to the Glasgow Ophthalmic Institution, advises that in cases of detachment of the retina, a vertical slit be made with scissors into the conjunctiva and subconjunctival tissue, laying bare the sclerotic at a point corresponding to the site of the detachment. The lips of the wound are separated by two small strabismus hooks, and the assistant steadily maintains the position of the eyeball, to prevent the exposed portion of the sclerotic from shifting; the sclerotome is then introduced into the sac. The incision through the sclerotic is made obliquely, in such a manner that the edges of the scleral wound should overlap each other when the instrument is withdrawn, and not remain gaping. Gentle pressure is made on the eyeball in the track of the receding lance by means of a fine spatula. The lips of the external wound are brought together with one or two fine silk ligatures, and both eyes are strapped with court-plaster. The patient is kept in bed, in a dark room for three days. The plaster and ligatures are removed on the sixth day, and the eye is gradually accustomed to the light. On the eighth day the result may be tested. Before resorting to the operation, says Dr. Wolfe, we must ascertain (1) that there is no opacity or softening of the vitreous, or at any rate, if present, that it is not general, but confined to the region of the detachment; (2) that the retina is healthy; (3) that the effusion is purely serous; (4) the exact site of the detachment. He reports five cases in which this operation has been successful.—*Practitioner*, March, 1883.

ELONGATION OF NERVES IN ATAXICS.—M. LÉPINE has reported to the Society of Biology his results from subcutaneous elongation of the sciatic nerve in a number of cases. After having tried unsuccessfully Langenbeck's and Débove's operations, he used the following: The lower limb being extended, the thigh was slowly and forcibly flexed on the trunk; this manœuvre being repeated every day for several weeks. After a time, modifications of sensibility and increased temperature are observed in the limb operated upon, and sometimes in the other. The patient complained of formications in the foot and leg, and there was marked diminution of the tabetic phenomena, shooting pains, and motor incoördination. There were no injurious effects.—*Le Progrès Méd.*, March 24, 1883.

GASTROSTOMY.—M. TILLAUX reported to the *Societé de Chirurgie*, the case of a man, æt. fifty-two, without syphilitic history, no local phlegmasia from the ingestion of corrosive liquids, who entered his service in 1881, with a very small fibrous stenosis seated about seven inches below the cricoid, and almost one-half inch wide. He left the hospital, and reëntered in February, 1882; was pale and dysphagic. M. Tillaux tried, once only, to pass a very small olive-point, and failing, decided to perform gastrostomy. The greater curvature of the stomach did not extend beyond a horizontal line drawn between the cartilages of the ninth and tenth ribs. If, from that line one is drawn on the right side along the anterior border of the liver, and another on the left following the line of the costal cartilages, they will bound a triangle corresponding to the seat of the stomach. M. Tillaux made an incision parallel to the costal border, about two and a half inches long, not passing beyond the horizontal line described above. Seventeen sutures were made, and the wound closed. The patient did well until the twelfth day, when he refused to eat, gradually became worse, and died on the forty-seventh day. At the autopsy fibrous contractions and solid cicatricial adherences existed between the stomach and the abdominal wall.—*Journ. de Méd de Paris*, March 24, 1883.

NITRITE OF SODIUM IN ANGINA PECTORIS.—DR. MATTHEW HAY, Demonstrator of Materia Medica in the University of Edinburgh, has used the nitrite of sodium very satisfactorily in a case of angina pectoris. So far as he is aware, this is the first case of angina pectoris in which a simple nitrite has been used. He thinks that it is as active and reliable as nitrite of amyl, or nitro-glycerine, at the same time possessing distinct advantages over either of these, notably in producing, in therapeutic doses, no disagreeable general effects—headache, giddiness, and even partial collapse. The objection to it is its tendency, in large doses, to produce eructations of nitrous acid gas, which, however, does not occur when small doses are administered. The formula used by Dr. Hay was: ℞. Sodii Nitrit., ʒss; Aquæ, ad ʒxij. Solv. S. Dose, one or two teaspoonsful.—*Practitioner*, March, 1883.

ROLE OF THE LYMPHATIC VESSELS IN PATHOLOGICAL PHENOMENA.—M. A. GUÉRIN has made this the subject of a paper read before the *Acad. des Sciences*. He shows, by a series of experiments, in accord with the views of Sappey but contrary to the opinion of some microscopists, that the lymphatics anastomose with the terminal arterial ramifications, and that a liquid, analogous to the serum of the blood, can pass directly from the arterial into the lymphatic system. This communication of the two systems is especially important, as explaining certain pathological phenomena. It seems from this that it is the invasion of the lymphatic territory by blood globules which constitutes the first phenomena of suppuration. Thus, when the pleura is inflamed, the lymphatics are quickly obliterated. It is by these numerous networks covering the surface of the lungs that the phenomena commence, and one attempts in vain to inject these on the lung of a person recently dead of pleurisy. If the lymphatics are also the agents of absorption of the pleuritic effusion, it is easily seen that this absorption cannot take place while they remain impervious; and it is doubtless on this account that we see pleuritic effusions resist the most energetic treatment, and then disappear in a few days when the absorption vessels become pervious.—*Révue Scientifique*, March 24, 1883.

URÆMIA OF HEPATIC ORIGIN.—M. DÉBOVE read a note before the *Soc. Méd. des Hôp.* on this subject. According to Brouardel, the urea is diminished in hepatic disorders. Débove's researches confirm this, though he interprets the fact differently from Brouardel. The diminution of the amount of urea may be explained by two theories: some difficulty of excretion of urea in the kidney, or some fault of formation in the liver. The latter theory has been adopted by Brouardel and most other authors. To prove it, he has attempted to show that the blood-urea (as opposed to the urine-urea) is equally diminished, and consequently the liver makes a smaller quantity of it; but Débove's experiments do not confirm this. As a result of his researches, Débove thinks that, from a therapeutic point of view, there is indication to determine polyuria in patients affected with grave icterus, in order to facilitate the elimination of extractive matters, such as have been recognized by Brouardel, A. Robin, Mossé. He thinks that this should be done in all cases of icterus.—*Journ. de Méd. de Paris*, March 24, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

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SATURDAY, APRIL 14, 1883.

KOCH AND HIS AMERICAN CRITICS.

AT the end of a year from the reading of his original paper on the Etiology of Tuberculosis, Koch reappears in print (*Deutsche medizinische Wochenschr.*, March 7th) in reply to his critics. The publications, he says, which do not confirm his views are so few that he might well pass them over in silence, especially as they all show for their authors either a complete or very considerable ignorance of bacteria-investigations, or incapacity for estimating the relations of pathogenetic bacteria to infectious diseases. Altogether without previous knowledge or experience in easier tasks, they have undertaken this difficult question; hence it is not to be wondered at that they have produced such defective work.

Taking up, first, American critics, Dr. Koch might have spared himself any allusion to Ephraim Cutter and Rollin R. Gregg, whose criticisms betray their incompetency to discuss the question, and in this country, at least, fail to attract any serious attention. Schmidt's unfortunate error with his fat-crystals is only saved from being equally discreditable to American investigation by the manliness with which the New Orleans histologist admits his mistake.

"An equally capable microscopist with Schmidt," says Koch, "appears to be Formad." Notwithstanding this, he fails to discover the bacillus in the sputum of a number of phthisical patients, although extensive destruction and cheesy alteration had taken place in the lungs. Besides, he denies that the bacilli of tuberculosis present any peculiarities in their behavior towards staining solutions, as contrasted with other bacteria. "Whence there can be no doubt," says Koch, "that Formad has not found the tubercle bacillus at all;" and, finally, "that Formad's judgment as to the significance of tubercle-bacilli is not worthy of attention until he has learned to recognize them with certainty; until he has made himself familiar with current literature, and especially the intra-ocular inoculations of Cohnheim and Salomonsen, of Hänsell, Schuchardt, Baumgarten, and Damsch; and until he has so far progressed in the experimental technique that his animals inoculated with wood, glass, and metal no longer die of tuberculosis; or, at least, until he can distinguish whether an animal has died spontaneously ill of inoculation-tuberculosis."

In the charge of incompetence against Formad, involved in these statements, Koch goes too far. For any one who reads thoroughly Formad's paper, cannot lay it aside without feeling that its author knows what he is talking about, whatever may be his errors; and the assertion that he cannot recognize the tubercle-bacillus when treated according to Koch's own method is a gratuitous assumption. This being the case, it is hardly likely that Koch will accept the testimony of those acknowledged in this country to be experienced microscopists, who, familiar with Dr. Whittaker's specimens fresh from the laboratory of Koch, after examining the preparations of Formad alongside of those of Schmidt, promptly said of the former, these are the real tubercle-bacilli, and of the latter, these are fat-crystals.

Formad does not deny that the bacillus is found in the sputum of phthisis, as Koch would have us infer. On the other hand, Formad says, "There is consequently no doubt of the existence of this organism in the sputa of patients suffering from this disease." He only says that, "in examining the sputa of a number of undoubted cases of pulmonary phthisis from the Philadelphia Hospital, I was unable to detect the bacillus *in a certain number*," and not *in a number of cases*, as Koch puts it.

As to the morphology of tubercle-bacilli, and their behavior with staining fluids, we have a direct issue between the two observers, in the decision of which the greater experience of Koch must be allowed a proportionate weight; although Spina, who must also be acknowledged to be a less expert mycologist, agrees with Formad. It is, however, an interesting fact that in both instances (the only ones so far as we know) in which the experiments of Koch have been systematically repeated by pathologists, their conclusions have been contrary to those of Koch. For although Spina's reputation is chiefly as a histologist, it is impossible for him to have been working under Stricker's eyes for thirteen years without becoming also a pathologist. It is a nota-

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ble fact, too, which Koch mentions, and as to which he expresses himself disappointed, that his results have been tested by few pathological anatomists upon whose territory they more especially trench, and that his investigations have rather attracted the attention of clinicians.

It is true that Formad makes no reference to the important intra-ocular (iris) inoculations of Cohnheim and others above referred to. Koch's adherents lay particular stress upon what they term Cohnheim's conversion to Koch's views through these intra-ocular inoculations. But they overlook the fact that Cohnheim's two series of experiments, viz., the first proving the non-infectiousness of tuberculosis and the second denying it, were not identical; the first being inoculations with indifferent substances into the *peritoneum*, and the second into the *eye*.

In the matter of tuberculosis being produced by the introduction of indifferent substances—glass, wood, and metal—Koch says Formad is behind the times, and that he holds the position occupied in Waldenburg's time, fifteen years ago, a position which has been overthrown by Cohnheim and Salomonsen's results. But Formad's voice is not the only one which, at the present day, sustains this old-fashioned doctrine. For not only Spina, but also Stricker, reaffirms so recently as March 16, 1883 (see *Wiener medizinische Presse*, March 18th), that "one may, with numerous indifferent substances, produce as true a tubercle as by means of tuberculous material taken from human lung." Stricker also states in the same connection that he "has tested and approved the assertion of Spina, founded upon a historical and experimental basis, that the inoculation-experiments of Dr. R. Koch, of Berlin, have not, in the least degree, contributed to prove the contagiousness of tuberculosis."

Formad's position that tuberculosis depends upon scrofulosis, and that there are scrofulous animals which may be inoculated with tuberculosis, and non-scrofulous which may not be inoculated, Koch meets by asserting that cats, which Formad places in his non-scrofulous category, are in his hands easily inoculable. Here again is fact against fact, assertion against assertion, and the question must be settled by third parties. At the same time, Koch practically admits such a subdivision exists when he says that white mice and dogs are both infected with difficulty, while Guinea-pigs and rabbits are infected with ease.

Koch fails to answer Formad's question why he invariably inoculated into the peritoneal cavity when he experimented with cats, dogs, and rats, and why he inoculated indiscriminately into any part of the body, animals like the Guinea-pig and rabbit, well known to possess a peculiarly scrofulous tendency; for it has been repeatedly shown by the experiments even of Cohnheim, as well as of Stricker and others, that the introduction of indifferent substances into the peritoneal cavity of non-scrofulous animals is followed by true tuberculosis, while the same substances introduced under the skin of these animals is totally without effect. A parallel to this is found in man, in the clinical fact that a pleurisy may terminate in a miliary tuberculosis in one in whom a phthisical history cannot be traced.

Of Sternberg, Koch disposes summarily by saying that because he could not find the bacilli he denied their existence, and it is to be hoped that in the mean time he has discovered his error.

So much for American literature. In our next issue we will consider Koch's German critics.

FAT-CRYSTALS IN THE URINE.

THE much-disputed question as to whether fat-crystals ever appear in urine would seem to have been settled by the observations of PH. KNOLL, who found (*Centralbl. für die med. Wiss.*, February 3d, from *Prag. Zeitsch. f. Heilk.*, iii. s. 148), in the freshly passed urine of a patient dying of subacute chronic nephritis with uræmic symptoms, a number of spherical, oval, cylindrical, and sometimes peculiarly constricted cells, filled with smaller and larger drops, whose fatty nature was shown in their behavior by transmitted, reflected, and polarized light, as well as by osmic acid staining. Many of these cells were beset with regular rhombic, pointed and delicately contoured plates, which, when seen on their edges, appeared like needles. They were soluble in ether, but unaffected by acids and alkalies. The urine was turbid, and contained casts, numerous white and some red corpuscles.

Microscopic examination of sections of the large white kidney derived from this case, revealed almost the same crystals—fewer of the long plates, but more numerous druses of smaller plates and needles. They were less numerous in the medulla than in the cortex, and in the latter situation they were present more particularly in the medullary rays; scarcely at all in the glomerules, and only occasionally in the interstitial tissue.

THE AMENDED BILL FOR THE LEGAL PROTECTION OF THE INSANE.

IN our issue for March 17th, we alluded to the bill relating to the above subject, now before the Legislature of Pennsylvania, commending most of its provisions and suggesting some important amendments. The bill as amended by a conference of those interested in the subject is now before us, and while in some respects improved, it still lacks the most important provisions we alluded to; and in some particulars is worse than it was before, for the

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changes are in the direction of *less* rather than greater protection of the alleged insane.

Very properly, the State Board of Public Charities has been placed in a more intimate and authoritative relation to the matter. But why on general principles any established hospitals should be exempted from taking out a license, we fail to see. True, the control over such excepted hospitals by visitation and inspection is retained, but the chief means of securing their proper administration is swept away. In the case of licensed institutions, public and private, the Board may revoke the license if they find sufficient cause so to do, but such control is denied them in the case of the excepted hospitals. If this be on legal grounds as an interference with vested rights, we suppose it must be submitted to, but it is none the less to be deplored. No institution ought to be exempted from such control; and any institution that objects to it is *ipso facto* the more to be suspected.

Again, the provision for visits of inspection and investigation once a month is omitted. While an "effectual visitation" is prescribed, it is left to the Board to determine how frequent this shall be. The number of persons allowed to visit an alleged lunatic is no longer indeterminate, but is cut down to "two proper persons," and the report on each case to the Board is to be made once in six months, instead of once in three.

Correspondence is simply to be "stamped and mailed," the word "daily" being omitted—a most important omission; and no provision is made, as in the English law, for forwarding indecent or improper communications to the Board, instead of to the person addressed.

The Committee in Lunacy, of which but one member is necessarily a doctor, still has power of summary discharge; and the medical officer of the institution must make his diagnosis within twenty-four hours; and voluntary patients are still not allowed to enter for a longer period than seven days; all of them defects which we previously pointed out.

We earnestly hope that these suggestions will receive consideration before the bill is put upon its final passage.

THE DEATH OF SURGEON-GENERAL BARNES.

WE print elsewhere an obituary notice of General Joseph K. Barnes, late Surgeon-General U.S.A., a physician whose career has been, as truly stated in the General Order announcing his death, "one of honor to himself, and of great service to his country."

It is largely due to his personal influence and administrative ability that we possess the *Medical and Surgical History of the War*, the Army Medical Museum, and the invaluable Medical Library of the Surgeon-General's Office.

The secret of his success is an open one, yet it is one which comparatively few can grasp and apply; it consisted in quick perception in selecting the right men for different kinds of work, in giving the men thus selected ample powers and responsibility, and allowing them full credit for the results.

He did not try to supervise all the details of the work of his department, a mistake which too many bureau officers are apt to make, but gave each of the officers under him an opportunity to develop his work in his own way, subject of course to the approval of his chief.

He had no thirst for personal notoriety, and his subordinates felt that while they would be held responsible for the completeness and correctness of their work, they might be sure of his support so long as that work was well done.

Under his administration the Medical Department of the United States Army has become the best organized and best supplied of any similar department in the world; and the satisfactory working of the machinery is best shown by the fact that upon his retirement it went on without a jar.

The medical profession of this country owes him a debt of gratitude for the work done for it under his direction; and although he was neither a writer nor a teacher, his name will live in the annals of medicine of this country as that of one who made substantial contributions to its advancement.

THE NATIONAL MEDICAL LIBRARY.

THE letter from our special correspondent at Washington, which appears in another column, brings up a matter which is of great interest and importance to the medical profession of this country, and concerning which it is time that some systematic action was taken.

The experience of the last session of Congress shows that our Representatives and Senators will give heed to the wishes of the medical profession of the country, when these are tolerably unanimous and clearly expressed. There can be no doubt that the physicians of the United States, with scarcely an exception, desire that the library of the Surgeon-General's Office should remain under its present management, and would regard its transfer to and merging with the general library of the Nation as a calamity.

Let it be considered as the medical section of the National Library, let the number of volumes it contains be counted as part of the National Library, but let it be kept in connection with the medical museum, which naturally belongs to it and has special need of it, and under the expert management which has made it what it is.

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What the library needs, and what the medical profession of this country should strive both individually and collectively to secure for it, are the following:

1. A commodious fire-proof building to contain the library, museum, and medical records.

2. An increase of the annual appropriation for the library, so that it shall be able to obtain every new medical book, pamphlet, journal, or transaction from all countries as soon as published, and shall also have some funds to complete its collection of old books as opportunity offers. The amount necessary for this purpose is estimated by the librarian to be $10,000 a year, independent of the amount necessary for the museum, and this estimate appears to us to be moderate and reasonable.

3. Authority to complete and print the *Index Catalogue*.

We commend this matter to the attention of the American Medical Association at its next meeting. It ought to have a Standing Committee to look after the interests of the medical profession in this respect, and to see to it—first, that our National Medical library is properly managed; and second, that so long as it is properly managed it shall not be swallowed by an ambitious librarian who knows nothing of medical matters, nor be crippled through mistaken ideas of economy by reduction of its appropriations, nor be left in a crowded and insecure building as it is at present.

A POOR PAYMASTER.

WE have often been impressed with the disproportion between the amounts paid to lawyers and doctors for professional services. No better illustration of this can be found than in the payment of the lawyers in the Star Route Trials, and the doctors who so intelligently served the government in the Garfield and Guiteau cases. We have already referred to the indignities heaped upon our profession in connection with these cases, and it only remains for us to condemn the carelessness and disinclination of the government officials to assume any responsibility in the payment of medical men who are engaged.

In the case of President Garfield we were humiliated to find that the nurse was paid almost as much as either Dr. Agnew or Dr. Hamilton. In the Guiteau case the comparison is almost as bad. With the exception of two or three favored medical men, the large number of distinguished experts summoned from all parts of the country received but twenty-five dollars a day. The personal loss to them was in some cases very great. One of these gentlemen by his enforced absence, we are informed, lost over two thousand dollars from his professional income, and another who was under engagement to deliver a course of medical lectures, was out of pocket to the extent of six hundred dollars. Other experts were equally unfortunate.

In this case the bills were referred to the District Attorney, Colonel Corkhill, for adjustment, and when it is stated that the compensation given for an equal amount of labor varied from $2,000 to $600, and that a local physician, who was on the stand not over ten minutes, received $200, the basis on which the compensation was calculated is difficult to understand.

In future we advise every medical man engaged by the Government to make his terms before-hand, or not to go to Washington at all.

We are in receipt of a letter from E. H. Hyatt, M.D., "Member of Faculty and Board of Trustees" of the Columbus Medical College, of Ohio, requesting us to publish "the action of the Illinois State Board" in the matter of the alleged irregularities of the Columbus Medical College, and so much of his letter "as will explain the causes which led to the investigation by the said Board." We have already, in our issue of March 3d, published these causes, which were charges by the West Virginia State Board of Health against the Columbus Medical College for the issuing of the Dent diploma, the circumstances of which were so recently narrated in our columns as not to require repetition. In the same issue we criticised the Illinois State Board, for not having mentioned this complaint in its published proceedings. We thought its action, when considered in connection with the recent accession to office of Gov. Hamilton, the nephew of Dr. J. W. Hamilton, the Dean of the Columbus Medical College, was calculated to place the Illinois Board in an equivocal position.

It seems that these charges were presented to the Illinois Board, and, two members of the Faculty of Columbus College being present, it was resolved, "that, while said College committed an irregularity in granting a diploma to A. M. Dent, that irregularity does not seem to warrant this Board in refusing to recognize other diplomas of said College." This can scarcely be considered as much of an endorsement of the Columbus Medical College, and it certainly does not alter the situation in unprejudiced eyes. The reputation of a medical college is not to be made or destroyed by resolutions of State boards of health. If a good reputation is desired, the only method to secure it is to adopt proper regulations as to curriculum, duration of study, and method of examination, and to live up to them. The publication of resolutions of the kind adopted by the Illinois State Board, which advertise the college while they condone its faults, will have but little weight with the community.

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The New Code Controversy has broken out in New York with renewed vigor, as will be seen on reference to another column. The adherents of the National Code have awakened from their apathy, and the advocates of the New Code are aroused by the adverse vote at the late meeting of the New York County Medical Society. Both sides are rapidly organizing for a vigorous contest in the State Society next February. In the mean time, circulars are being distributed, and pledges received, and the issue is becoming sharply defined all over the State.

REVIEWS.

Quain's Elements of Anatomy. Edited by Allen Thomson, M.D., D.C.L., LL.D., F.R.S., Edward A. Schafer, F.R.S., and George Dancer Thane. Ninth edition, 8vo. 2 vols., pp. xiii. 748 and ix. 947. New York: Wm. Wood & Co., 1882.

It would be difficult to find just the counterpart to "Quain's Anatomy," as to age, authority, popularity, and completeness. Nine editions are rarely seen on either side of the water, at least in scientific works, and the two portly volumes which now make up this valuable work, are at once a witness to the extent of the Science of Anatomy and the thoroughness with which it is here treated.

The student will get not only a full knowledge of gross or macroscopic anatomy, but will also obtain a sufficient knowledge of microscopic anatomy as well, together with pretty full outlines of embryology, a department of which, in general, the profession is far too ignorant. Variations of structure, and superficial anatomy also are treated quite freely.

The editors are to be congratulated upon the admirable manner in which they have accomplished their work. Both letter-press and illustrations are good. Though bearing an American imprint, the work, save the title-page, is English.

SOCIETY PROCEEDINGS.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Stated Meeting, April 3, 1883.

The President, Alfred Stillé, M.D., in the Chair.

Dr. Wm. Barton Hopkins presented a report of a

CASE OF RESECTION OF THE RADIUS PERFORMED BY DR. JOHN RHEA BARTON, IN 1828.

This patient came under observation a month ago, at the Episcopal Hospital, where she came with her son, who had received an injury of the head.

The account which she gives of an operation performed upon her, fifty-four years ago, by Dr. John Rhea Barton, is as follows:

She says that when she was ten years of age she was taken to the Pennsylvania Hospital, for a disease of the forearm, which, it was thought, followed a sprain of the wrist. Dr. Barton placed her arm upon a table, and, with an instrument which cut at both ends, made an incision, and by scraping and cutting removed a long piece of bone full of small holes, like a honeycomb, and containing a large cavity in its centre. He told the students present at the operation that he did not expect new bone to form, but that a gristle-like substance would take its place. She remained in the hospital until the autumn, and in a few months after her discharge regained to a great extent the use of her hand.

In studying the condition of the parts as they now present themselves it will be of interest to note the main causes which have brought about the usefulness of the hand, the changes in position and function of the parts not involved in former disease, incident to the removal of so important a structure as the entire or almost entire diaphysis of the radius, and the influence these alterations have had upon the growth and development of the bones and soft parts. The usefulness of the hand would seem to depend not only upon the preservation of the upper and lower epiphyses of the radius, the former through probable extension of the periosteum giving attachment to the biceps muscle, and the latter to the long supinator, but also upon the strong healthy character assumed by the skin investing the lower end of the ulna. This skin cap is the principal antagonist to the action of the muscles of the forearm, and if from constant pressure against the bone it had become thin and tender, as it very likely would have done, without the intervention of a bursal sac, every movement of these muscles would have caused pain, and the hand would have become almost useless.

The skin has, of course, yielded to a considerable extent, and the hand has, therefore, been gradually dragged up the forearm. The thumb from the loss of the origin of its long flexor, has become feeble and disused. The ulna has been made an active agent in support, and having lost its styloid process, presumably by absorption, the lower end has assumed a smooth knob-like appearance.

The growth of the sound bones has been comparatively little arrested, this being evidence that active work was performed by the hand during the growing years, which succeeded the operation. The humeri are the same length. The right ulna is one and a quarter inch shorter than the left. Part of this difference must be accounted for, however, by the absence of the styloid process, and part may also be due to a somewhat deficient development of the whole lower epiphysis in length, though not in breadth, as it is full and broad.

From measurements made of the ulna in connection with this case, the average length of the bone in females at the age of ten years is about seven and a half inches. In this case it is ten and a quarter inches upon the left side, and nine upon the right. The difference in the circumference in the middle of the arms is three-quarters of an inch; in the middle of the forearms, two inches; and of the hands, one inch; all in favor of the left or sound side.

The hand is set in an everted position well up the forearm, the tip of the middle finger being four inches and a quarter nearer the elbow than upon the left side. Although thus distorted and so loosely attached that it can be brought at right angles with the line of the ulna, it is remarkably strong, and with it she is capable of executing almost any movement.

Articulated with the carpus is felt the lower end of the radius. In its proper place the head of the radius may also be felt, continuous with which, and extending down the forearm nearly to the hand is a prolongation of fibro-cartilage, occupying the site of the excised bone.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 5, 1883.

The President, Fordyce Barker, M.D., LL.D., in the Chair.

After the reading and acceptance of various reports, Dr. Edward L. Keyes read a memoir upon his late

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friend and teacher, WILLIAM H. VAN BUREN, M.D., LL.D.

Resolutions commemorative of the life, character, and death of Dr. Van Buren, and expressing deep sympathy with his bereaved family and friends, were drawn up by Dr. Austin Flint, Sr., and read by Dr. Austin Flint, Jr. These were seconded in a few well-chosen words, by Dr. Alfred C. Post, in response to a call from the Chair, and were unanimously adopted by the Academy.

The paper of the evening was by DR. BEVERLY ROBINSON, entitled

A CLINICAL STUDY OF THE ACTION AND USES OF CAFFEINE AND CONVALLARIA MAIALIS AS CARDIAC TONICS.

Until very lately, many of us were accustomed to regard digitalis as the essential, nay, almost the only real stimulant or tonic of the heart. True it is, we consider alcohol a powerful stimulant, and incidentally recognize that it gives the heart renewed power.

In ether and ammonia, we have also diffusible stimulants of considerable value, but their action is evanescent, and is not to be relied on if a continued or specific effect upon cardiac contractability is required.

In iron, quinine, and nux vomica, or its alkaloid strychnine, we have three very powerful corroborants. They restore appetite, make blood of better quality, add to muscular vigor, and rehabilitate, in a notable degree, the general system.

In coca, also, we have a powerful stimulant to the economy, that frequently will strengthen or give tone to the nerves in a rapid manner, that no other drug with which the author of the paper was familiar, can accomplish.

In belladonna we have the only drug which has hitherto taken the place, even in a moderate degree, of digitalis in its direct tranquilizing, and at the same time, strengthening, effect upon the heart. But belladonna appears to influence especially the cardiac plexuses and intra-cardiac ganglia, and to give immediate power to cardiac muscular fibres, as digitalis does.

Within the past year, two new drugs have claimed our attention as cardiac tonics: caffeine; and *Convallaria maialis*, or its glucoside, convallamaria. The object of the paper was to present what was actually known in regard to the nature, action, and uses of these agents, and also to accompany this with records of some personal cases, and the obvious deductions which can be made therefrom.

Caffeine, or citrate of caffeine, as it is improperly termed, is no new remedy, but not until after the labors of Gubler and other therapeutists was the attention of the medical profession specially directed to it as a cardiac tonic and regulator. Over digitalis it has certain evident advantages: 1. It has no tendency to cumulate in the economy, and hence to occasion poisoning effects. 2. It acts with greater rapidity than digitalis. In cases of asystolism when life is imminently endangered, this property may be of great value. 3. It rarely or never disagrees with the stomach. Four illustrative cases occurring in the practice of Dr. Robinson were then cited in detail.

The second part of the paper was devoted to the Lily of the Valley, or *Convallaria maialis*. This drug had been known for many years, especially its purgative quality, which was similar to aloes and scammony. The conclusion of Ott, in his investigations upon the physiological action of *Convallaria maialis*, were given in full, together with a synopsis of the views of the principal previous writers on the subject. Dr. Robinson then detailed his personal experience with the drug as a cardiac tonic, and gave the detailed histories of eight cases in which cardiac debility was a marked symptom.

Convallaria, possibly, was a stimulator of the cardiac muscles in its first period of action, whilst its after-effect may become of a paralytic order. Further, it is, after the manner of digitalis, a stimulator of the medullary inhibitory centres. In this latter action, no doubt, resides its special power to control dyspnœa and the symptoms of purely functional heart disorder, particularly paroxysmal palpitation and rapid and irregular heart action dependent upon debility (Trideau). It was further probable that *Convallaria maialis* is more potent in its action upon the pneumogastric trunks than it is in its direct influence over the cardiac muscular fibre.

A summary of cases seemed to show:

1. In caffeine and convallaria we have two efficient heart tonics.
2. Diuretic action of caffeine is more marked than that of convallaria.
3. Convallaria is well borne by the stomach of most patients suffering with chronic cardiac disorders.
4. When not well supported, rejection of medicine by the stomach is probably due to the uræmic condition already commencing.
5. As cardiac tonics, it is difficult, as yet, to assign a decided superiority to either of these drugs, they both giving increased cardiac power.
6. Cumulative effects do not occur from their continued use during a period of ten days or more.
7. Their power of restoring the rhythm to the cardiac pulsations and increasing the bulk of urine is not equal to that of the infusion of digitalis.
8. In the latter drug we have still the most efficient heart tonic and regulator which has been discovered.
9. Digitalis is a more powerful diuretic than caffeine.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, April 5, 1883.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. W. GOODELL exhibited some

CALCAREOUS PARTICLES PASSED PER VAGINAM.

The previous history had been that of menorrhagia, and multiple fibroids were found in the womb. One of these fibroids had evidently taken on calcareous degeneration, and had subsequently broken down and discharged these fragments into the uterine cavity. He stated that these particles were not true bone, but merely the product of a disorderly deposit of lime, which possessed none of the osseous elements, not even cartilage-corpuscles. This calcareous degeneration tends to cure the disease by breaking off the vascular filaments of attachment and lessening the nutrition of the fibroid. In one instance, the specimen of which is now in the Museum of the University of Pennsylvania, he had seen three fibroids wholly converted into stone. These stones were, however, very light, and not like those of the bladder. It was the expulsion *per vaginam* of these uterine calculi which had greatly puzzled the older anatomists.

DR. GOODELL also exhibited two calculi, and related the following histories of two cases of

STONE IN THE FEMALE BLADDER ASSOCIATED WITH FISTULOUS CONNECTION WITH THE BOWELS.

The first case was that of a patient of Dr. C. A. McCall, who sent her to him in October, 1881. For the preceding four years she had suffered very much from vesical tenesmus; she frequently broke wind *per urethram*, and often passed through the same channel the seeds of raspberries, of tomatoes, and of pears. A year before Dr. Goodell saw her, she had voided a great deal of her urine per rectum for several weeks.

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Dr. Goodell detected two stones in the bladder, and removed them. At once all the symptoms of fistulous connection between the bladder and the bowels disappeared, and the patient got well. This rapid recovery led him to think that there had not existed any fecal fistulæ, but that the vesical tenesmus was so great as to cause a rectal tenesmus, which was masked by the former, and that the seeds and wind were voided per rectum unconsciously by the woman when attempting to empty the bladder. But he had been led to change his views by the following case which he had seen with Dr. Wm. Corson, and which Dr. Ellwood Corson was kind enough to report for him. Misled by the first case, Dr. Goodell was not at first disposed to admit the existence of a fecal fistula, but from the subsequent history of the case there can be no doubt of it. In this case he believed that a pelvic abscess had burst into the bladder and also into the rectum or small intestines, which had established the communication between the two viscera. Like the first case, as soon as the calculus was removed the fistulous tract closed and the patient got well.

Mrs. R., American, aged fifty years, the mother of five children. For three or four years prior to November, 1881, she was troubled occasionally by the passage of small calculi, but her health was reasonably good, with the exception of backache and an almost constant pain in the right iliac region. She often expressed her belief that there was something growing in the right side. There was no tumefaction in that region, and her opinion was based on the pain and distress she felt. She never applied to her physician for relief of this suffering. She was also troubled with constipation. In November, 1881, she made a visit to the country, and took a long walk. On her return home she had a constant desire to urinate, and she then noticed, for the first time, that her urine had an unnatural color, and a very unpleasant odor. The quantity passed was not excessive. This condition continued for five or six days, when there occurred a sudden gush from the bladder of a very offensive mixture of pus and urine, accompanied by great pain and straining. Her pain and distress became so great, and was so augmented by being on her feet that she was compelled to remain in bed. After the free discharge occurred, the pain in the right iliac region ceased, and she has never had any return of it.

As she was troubled with constipation, she was directed to eat stewed prunes, and she soon noticed that the prune-skins came from the bladder, as did other articles of food, along with the urine. Every day she was troubled with the escape of gas through the urethra, and this gave her as much pain as the passage of solid matter. She says that she occasionally passed urine through the rectum. She became greatly emaciated, and was but partially relieved of her suffering by the constant use of morphia. Until Jan. 20, 1882, she was under the care of homœopathic physicians. On that date, Dr. Wm. Corson was called to the case. Feb. 10th, Dr. Goodell saw her, and diagnosticated stone in the bladder. Feb. 20th, she was etherized and the urethra dilated, and a digital examination proved the existence of a calculus, about three-quarters of an inch in diameter, attached to the fundus of the bladder. This was removed by Dr. Ellwood Corson. In attempting to dislodge the calculus, it crumbled on slight pressure with the extracting forceps, and proved to be a mass of fecal matter with a calcareous crust, but slightly thicker than an egg-shell. While she was under the influence of the anæsthetic, an attempt was made to wash out the bladder, but after injecting f℥xij of water, and finding that it escaped into the interior of the body, and did not remain in the bladder, the washing-out process was discontinued. After she regained partial consciousness, and made a strong straining effort, the injection came away through the urethra.

As there were some doubts expressed as to the possibility of there being an opening from the bowels to the bladder, she was induced to eat a few stewed figs, and the seeds were *seen* to come from the urethra; on another occasion f℥viij of carmine-colored water were injected into the rectum and were immediately drawn from the bladder by means of a catheter. After the removal of the calculus it was thought proper to keep the bladder washed out daily with warm injections, and to regulate the bowels with mild aperients, but after persisting in this course of treatment for four days it was abandoned, as it caused her great discomfort and did not improve her condition. Afterward she was allowed to eat such food as the system craved, care being taken to select such articles as would not leave an irritating residuum. She rapidly improved, and since April, 1882, has had no trouble with her bladder. If she eats acid fruits or drinks lemonade, she has some irritation in passing urine. That there was a fistulous opening from the bladder to the rectum, there can be no doubt; and when we take into consideration the fact of an abscess forming somewhere in the right iliac region and opening into the bladder, and that the food passed from the bladder in a semi-digested state, and the absence of a fecal odor, there is a strong probability that there was also an opening from the small intestines into the bladder."

DR. J. C. MORRIS had seen two cases of pelvic abscess bursting into the bladder. One case was in the person of a night-nurse at the Episcopal Hospital. A tumor in the lower part of the abdomen first attracted attention. The uterus was drawn up out of reach of the finger when making a vaginal examination; an inflammatory mass could be felt between the uterus and bladder; every half-hour a mixture of urine and pus was voided *per urethram*. If a catheter was passed into the bladder and turned to the right, urine escaped through it; but if it was passed to the left, nearly pure pus passed through it. Examination with the sound showed a large fibroid in the anterior wall of the uterus. This tumor having undergone purulent degeneration, and a fistulous opening being established in the bladder, the pus escaped through the bladder. A galvanic stem pessary, five and a half inches long, was introduced into the uterus, and was finally successful in effecting its reduction to the normal size. This woman died of fibroid phthisis, and at the post-mortem examination, the uterus was found but slightly enlarged, and the fistula into the bladder was not seen, but a communication from the small intestine into the bladder was discovered.

DR. WM. H. PARISH had seen one case of fistulous communication between the bladder, vagina, and small intestine, resulting from an attempted abortion and consequent cellulitis. After long-continued pelvic symptoms, food commenced to pass through the bladder and the anterior and upper portion of the vagina. Water injected into the vagina passed into the bladder, but a sound could not be made to follow it. The food which passed through the fistula was incompletely digested.

DR. ELLIOTT RICHARDSON read a

REPORT ON RESULTS OF POST-MORTEM EXAMINATION OF THE BODY OF LINA EARL.

This woman was operated upon September 22, 1880, for removal of a living child from the uterus by Cæsarean section, as modified by Porro and Müller. A report of the case was published in the AMERICAN JOURNAL OF THE MEDICAL SCIENCES, Jan. 1881. The immediate results of the operation were in every way favorable.

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The child was living and the mother made a speedy recovery.

She died in New York City on February 24, 1883, two years and five months after the operation. She had been for two years previous to her death at times an invalid, and was under my care occasionally for the treatment of attacks of acute rheumatism, anæmia, etc., to which her life of hardship and exposure as an exhibiting curiosity rendered her peculiarly liable. The more recent symptoms which appeared during the last illness I did not witness, but learned were attributable to defective action of the kidneys.

At the post-mortem examination, made about 9 P. M. on February 24th, ten hours after death, there were present Drs. Satterthwaite and Hegeman, of New York, and myself.

Inspection of the body showed the long bones of the extremities to be deformed as in rachitis; deformities which had not been so apparent during life. General anasarca was present. On the surface of the abdomen a cicatrix was observed extending from a point about one and one-half inch above the umbilicus to within about three-quarters of an inch of the symphysis pubis. This cicatrix was the remains of the abdominal incision made at the time of the operation for her delivery, and occupied the linea alba directly in the median line, except that at the umbilicus it was deflected to the left. Nearly the whole of that portion of the cicatrix extending between the symphysis pubis and the umbilicus was the site of a large hernia, which, however, did not extend into the latter. This hernia I had seen during the patient's life. It began to appear about six months after the operation, and received no treatment whatever until by its size it became inconvenient, then a bandage or truss was applied, and this she wore constantly until her death. The production and enlargement of the hernia had been greatly favored by the woman's course of life as an exhibitor of herself and child, for the latter she lifted up and held in her arms many times a day in order to display it to her visitors, even after it had become much too heavy for her to carry.

The body was opened by a long incision from the top of the sternum to the symphysis pubis. This incision was deflected to one side opposite the cicatrix of the old abdominal wound, in order that the relations of this to the abdominal contents might be more closely observed. The body, as before stated, was anasarcous throughout; some clear serous fluid was found in the peritoneal cavity, and a good deal in the cavities of the pluræ and the pericardial sac.

Dr. Richardson very much regretted that he had no data of microscopic appearance of any internal organ or tissue to give. Only the gross lesions which could be detected by the unaided eye in a hasty examination can be given. The heart was not opened, but the left ventricle appeared abnormally large. The lungs were œdematous, and pneumonia of the right side was observed. The spleen was enlarged. The liver presented an appearance of fibrous or "hob-nail" degeneration. The kidneys showed unmistakably the existence of Bright's disease. The abdominal and pelvic cavities gave no evidence of any peritoneal or cellular disease. The hernia was found to be covered by peritoneum and skin; the remaining structures having parted to admit the protrusion of the intestines and peritoneal covering. No adhesions between the cicatrix and subjacent structures could be detected except at the lower angle of the wound. It was at this point that the stump of the uterus had been fixed, in a manner similar to the disposal of the pedicle in ovariotomy. A fibrous band was found extending from a depression in the abdominal wall, at this point, to a body consisting of the remains of the uterus.

Dr. Satterthwaite, who examined these specimens, writes that this body, which occupied nearly the normal position of the cervix uteri, except that it was displaced somewhat anteriorly, presented the following characteristics: "The extreme length of the stump was 4.75 cm. (1.87 inch); vertical thickness 2.5 cm. (1 in.); its breadth 1.5 cm. (½ in.). On attempting to pass a uterine probe into the os externum, it was found to enter with difficulty, though the cervical canal was capable of admitting a No. 10 (English) sound. The mucous membrane was coated with a deposit of white, thick, gelatinous material, and was intact for a distance of 3.5 cm. (1¼ in.). No naked-eye evidences of cicatricial tissue were made out at the amputated extremity of the neck."

Examination of the pelvis *in situ* was of much interest to me. Measurement of the superior strait gave for the

Conjugate diameter,	.	.	2 inches exactly.
Transverse "	.	.	4¼ "
Oblique "	.	.	4⅜ "

The pelvis was a rachitic one, although the pavilion did not present the wide-spreading alæ or the diverging anterior-superior spinous processes of the ilia, which are the usual deformities of rachitis in this part of the pelvis. The true pelvis, however, presented highly characteristic deformities. The sacrum was at its upper part dislocated, and pressed downward and forward into the pelvic cavity, while the lower extremity, being held by ligamentous bands to the ischia and pelvic bones, caused a sharp bending forward of the last three vertebræ of the sacrum. This deformity implied abnormal softness and pliability of the bone at a time when the individual was of sufficient age to either stand or sit erect, so that it alone is conclusive evidence of rachitis having existed. The normal curvature of the pubic bones was nearly lost, so that they receded from the symphysis in nearly straight lines backward and outward to join the ischia and ilia, the two pubic bones when viewed from above forming an abnormal angle at the symphysis. The shape of the superior strait was therefore obtusely cordate, deeply indented at its base by the promontory of the sacrum projecting far into it. I was much surprised at the evidences of rachitis, which became more and more conclusive as the examination proceeded. Since the history of the patient formally given me was that of excellent health from birth to the time of the operation, in 1880, and we were told by the woman, and those who had known her best in early life, that she was in her figure an almost exact counterpart of her father, these facts—as I supposed them to be—led me to believe that her shape was due to arrested growth, and not to rachitis.

It will be of interest to know that the child of this woman is now living, that he is well developed, and presents no deformity nor any symptom of rachitis. He is of fair size for his age.

In closing, Dr. Richardson drew the following conclusions from the examination:

1. That the deformity of pelvis and extremities was due to rachitis.

2. That the operation had nothing to do with the patient's death.

3. That the operation caused the patient no inconvenience except from the hernia, which would either not have become developed, or at most would have been small, had it not been for the exposure of the woman to unusual strain, and her total neglect to resort to any treatment until the hernia became large.

4. That success, in so far as the woman was concerned, would have been possible, and even probable, with diameters so large if embryotomy had been re-

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sorted to in this case, but the operation would still have been dangerous and the child would necessarily have perished.

Dr. R. P. Harris remarked that of five Porro operations in this country, four have been fatal. This is the first successful operation in which a post-mortem examination has been obtained after entire recovery.

Dr. Richardson, in reply to Dr. A. H. Smith, stated that no trace of a fistulous opening between the stump of the uterus and the abdominal wall existed at the time of death.

Dr. B. F. Baer read the history of a case of

SUPPURATING CYST OF THE BROAD LIGAMENT, WHICH HAD PERFORATED THE BLADDER,

and exhibited the specimens removed by laparotomy. The characteristic points were chills, exhaustion, anorexia, tenderness throughout the lower abdomen, and a small, painful tumor in the left iliac region, with great irritability of the bladder. Pulse 120, temperature 100° to 102°. The tumor extended down between the bladder and uterus, and the latter was retroverted. Douglas' cul-de-sac was occupied by a thin-walled fluctuating cyst, about the size of a large orange. The uterus could be moved slightly from side to side; the anterior tumor rested on the bladder and was adherent to it. The history showed a slowly growing cyst with purulent contents, commencing about three years before, when the first chills and a mild septicæmic fever had occurred. Gradual emaciation had been going on since that time. Tympanitic resonance of the tumor gave evidence of decomposition with evolution of gas. When the catheter was passed before operating, several ounces of very fetid pus flowed through it, showing a spontaneous rupture of the cyst into the bladder. The cyst was found adherent to the abdominal wall and to the bladder, but not to the intestines or uterus. The cyst was aspirated and removed by laparotomy. The pedicle, consisting of broad ligament and Fallopian tube, to which the left ovary was adherent, was transfixed and ligated. The cyst in Douglas' pouch arose from the opposite broad ligament; it had formed no adhesions and was removed without evacuation of its contents. The ovary and Fallopian tube were healthy and were not removed. The aperture in the bladder through which the contents of the cyst had escaped, was valvular, and was closed by the compression furnished by the external dressings. The patient died from exhaustion soon after the close of the operation.

Dr. Baer cited cases from W. L. Atlee, Peaslee, Keith, George F. French, and Goodell, to prove the correctness of the principles upon which he operated.

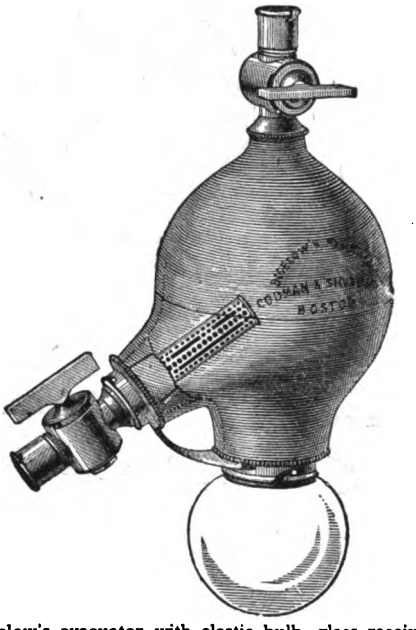
Dr. W. H. Parish thought Dr. Baer's rules safe and sound; he had removed a suppurating cyst with anterior adhesions. An experienced operator, who was present, recommended delay, but feeling sure of the correctness of his own principles, he removed the cyst and the patient recovered. In another case, in which a fistulous opening discharging pus existed, suppurative peritonitis was diagnosticated, but after death from septicæmia, a post-mortem examination revealed a suppurating cyst of the ovary.

NEW INVENTIONS.

A SIMPLIFIED EVACUATOR FOR LITHOLAPAXY.

Dr. Henry J. Bigelow has modified the evacuating instruments used in litholapaxy, with the view of securing a form which will hold securely the fragments after aspiration. This has been the chief difficulty which had yet to be overcome in all evacuators heretofore made. Dr. Bigelow finds that the simplest way of obviating this difficulty is to collect the fragments in a bulb, and prevent their escape. For this purpose he uses a straight cylinder with perforated walls, which is nothing more than a prolongation of the catheter into the bulb. The water which brings the fragments from the bladder is strained on its return. He says: "To the open end of this perforated cylinder a valve might be attached, either a ball-valve moving loosely, which is less liable to obstruction than a valve with a hinge, or still better at the same point, half an inch of collar tube which opens, allowing the fragments to pass up through it, and collapses with the reversed current, cutting off their retreat; the water as it returns passing back through the perforated walls. In operating with this instrument I have found it to work perfectly, but a valve is not necessary, and the apparatus is more simple without it."

Fig. 1.



Dr. Bigelow's evacuator, with elastic bulb, glass receiver, and stop-cocks. Below is a metal brace, between the collar of the glass receiver and that of the catheter, to steady the latter. Within the bulb, and open at the end, is a tube-strainer to prevent the return of débris.

The instrument is shown in Fig. 1. The catheter enters a spherical bulb obliquely upward, is prolonged to the centre of the cavity by the perforated tube referred to, which is open at the end. The catheter, tube, and elastic bulb are in a straight line. By this arrangement the current is not *deflected*, and in this manner the force is not diminished. During the operation the current, with the débris, passes from the bladder straight through the tube into the widest part of the bulb, and the fragments fall into the receiver. When the bulb is compressed the water returns almost entirely through the perforations in the tube, their area being collectively larger than the opening at the end of it, and they being also nearer the point of exit of the water from the bulb. By this means *the return of the fragments is practically prevented*. In case of obstructions to the tube-strainer by mucus, coagula, or other material, it can be removed and cleansed in a few moments. Dr. Bigelow thinks that even when the tube continues to work well, it is better to pass a brush over it if any mucus adheres to it. The perforated tube is a valuable addition, and meets the requirements. It is best not to fasten

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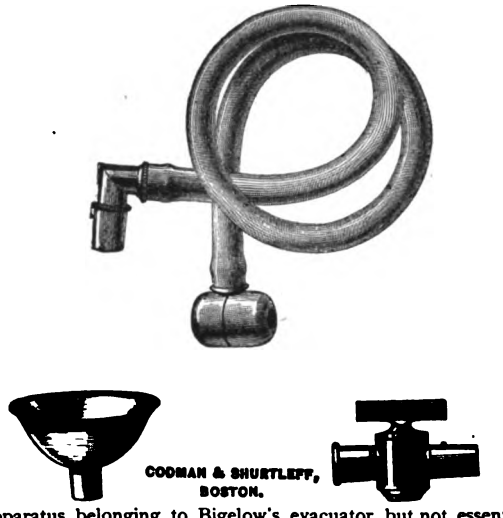
the tube permanently into the bulb, the cavity of which should always be easily accessible.

Dr. Bigelow claims other advantages for this arrangement: 1. When the trap is within the bulb, the instrument is more compact, shorter, and more easily managed, and the bulb, being in a straight line with the catheter, forms a handle which enables the operator to direct the catheter more easily. 2. The glass receiver, being attached immediately below the bulb, is more easily seen. 3. A brace unites the metal collar of the catheter with that of the glass receiver, and so steadies it that the catheter does not feel the movement of the bulb. Patients often complain of this oscillation when the ordinary instruments are employed. This result is further attained by the conical projection of the bulb at the point where the catheter is attached. 4. An elastic hose (Fig. 2), easily attached to the top of the bulb, facilitates the operation. With this, any air or discolored water can be driven out and clean water introduced, by a single compression of the bulb, with no delay and without taking off the catheter.

FIG. 2.



Apparatus belonging to Bigelow's evacuator, but not essential to it, viz., a tunnel and a hose, both of which fit on to the top of the bulb, and an extra stop-cock for the evacuating catheter.

By this arrangement, in short, we can regulate the amount of water in the bladder at any time—a very important point. This should be regulated, at first, according to the capacity of the bladder; then it may be necessary to withdraw the water quickly, in case of retching, to allow for the muscular strain, or to relieve the violent expulsive efforts of the bladder, which may become very tense. One end of the hose being attached to the bulb, the other can remain in a vessel placed between the patient's knees, or in any other convenient place. The hose, however, is not essential. A funnel is furnished with the instrument, for those who prefer it, Fig. 2; also a second stop-cock, Fig. 2, which, if attached to the head of the catheter, is useful in keeping the bed-clothes dry when the bulb is removed. This improved instrument is made by Codman & Shurtleff, of Boston.

CORRESPONDENCE.

PREHISTORIC TREPHINING.

To the Editor of THE MEDICAL NEWS.

SIR: The editorial in your number for March 24th, entitled "Prehistoric Trephining," caused me to hunt up a curious passage in *The Anatomy of Melancholy*, and having found it, I have made a note of it. Here it is:

"Cauteries and hot iron are to be used in the suture of a crown, and the seared or ulcerated place suffered to run a good while. 'Tis not amiss to bore the skull with an instrument to let out the fuliginous vapours." Sallus Salvianus, *de re medic. lib. 2, cap. 1.* "because this humour hardly yields to other physics, would have the leg cauterized, or the left leg, below the knee, and the head bored in two or three places," for that it much avails to the exhalation of the vapours: "I saw (saith he) a melancholy man at Rome, that by no remedies could be healed, but when by chance he was wounded in the head, and the skull broken he was excellently cured." "Another, to the admiration of the beholders, breaking his head from a fall from on high, was instantly recovered of his dotage." Gordonius, *cap. 13, part 2*, would have these cauteries tried last, when no other physic will serve. "The head to be shaved and bored to let out fumes, which without doubt will do much good. I saw a melancholy man wounded in the head with a sword, his brain-pan broken; so long as the wound was open he was well, but when the wound was healed, his dotage returned again." But Alexander Messaria, a professor in Padua, *lib. 1, pract. Med., cap. 21, de melanchol.* will allow no cauteries at all, 'tis too stiff a humour and too thick, as he holds, to be so evaporated. Guianerius, c. 8, *Tract* 15, cured a nobleman in Savoy, by boring alone, "leaving the hole open a month together," by means of which, after two years' melancholy and madness, he was delivered. All approve of this remedy in the suture of the crown; but Arculanus would have the cautery to be made with gold. In many other parts, these cauteries are prescribed for melancholy men, as in the thighs (Mercurialis consil., 86), arms, legs. *Idem consil.* 6, and 19, and 25. Montanus 86. Rodericus à Fonseca *tom.* 2, *consult.* 84, *pro hypochond. coxa dextrâ*, etc., but most in the head, "if other physic do no good."

Burton's immortal work was first printed in 1621.

Yours truly,

WALTER F. ATLEE.

PHILADELPHIA, April 9, 1883.

OBITUARY.

JOSEPH K. BARNES, M.D., LATE SURGEON-GENERAL, U. S. ARMY.

BRIGADIER-GENERAL JOSEPH K. BARNES (retired), late Surgeon-General, United States Army, died at his residence in Washington, D. C., on the morning of April 5, 1883. He was born in Philadelphia, July 21, 1817; studied medicine in the office of Dr. Thomas Harris, and graduated from the Medical Department of the University of Pennsylvania in 1838. After graduating, he served for one year as resident physician in Blockley Hospital, and one year as physician to the poor in the northwestern district of Philadelphia. He then entered the army as assistant surgeon, his commission being dated June 15, 1840. After four months' service at West Point, he was sent to Florida, where he was on duty with Harney's expedition during the Seminole War. He left Florida in 1842, and was stationed at Fort Jessup, Louisiana, until 1846, when he went to Corpus Christi. During the Mexican War he was chief medical officer of the Cavalry Brigade, and took part in every action on both General Taylor's and General Scott's line, except that at Buena Vista. After the close of the Mexican War, he was in charge of the general hospital at Baton Rouge, La., and then served in Texas, and as Medical Director of the Department of Oregon. From 1854 to 1857 he was at

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West Point, after which he was transferred to the Pacific Coast. He was commissioned as surgeon, August 29, 1856.

At the outbreak of the war he was summoned to Washington. He was appointed a medical inspector, with the rank of Lieutenant-Colonel, Feb. 9, 1863, and, on August 10th of the same year, he was promoted over several other inspectors to be the Medical Inspector-General, with the rank of Colonel. On the dismissal of Surgeon-General Hammond, Dr. Barnes was selected to succeed him, and became Surgeon-General, with the rank of Brigadier-General, August 22, 1864. He was breveted Major-General in 1865, and was retired, June 30, 1882, under the recent law prescribing retirement at the age of sixty-four. The cause of his death was Bright's disease, the first symptoms of which were observed about one year ago.

Early in the war, Dr. Barnes attracted the attention of Mr. Stanton, the Secretary of War, who became his steadfast friend; and it was largely due to this friendship, and the consequent support of the Secretary, that General Barnes was able to accomplish so much towards placing the medical department of the army on a proper standing as regards the control of hospitals and hospital-transports. The efforts of local commanders to obtain control of hospital-boats, in order that they might be used occasionally for other purposes, were vigorously contested by General Barnes, and, in consequence of his energetic appeal to the War Department, an order was finally issued, Feb. 8, 1865, directing that "hospital-transports and hospital-boats, after being properly assigned as such, will be exclusively under the control of the medical department, and will not be diverted from their special purposes by orders of local or department commanders, or of officers of other staff departments."

After the assassination of President Lincoln, there was a general feeling that the theatre in which the event occurred should no longer be used as a theatre, but should become the property of the United States. The collections of medical and surgical specimens made during the war had at that time no sufficient room for safekeeping and exhibition, and General Barnes proposed that the theatre should be transferred to the medical department of the army, and used to store the medical and hospital records of the war, and to serve also as a museum. His request was granted; and the Army Medical Museum, the Library connected with it, and the work done in both are well known to medical men all over the world as the result.

As a practical physician and surgeon, General Barnes had a high reputation in Washington, and his name is familiar to the country as one of the consulting surgeons in the case of President Garfield.

In the announcement of his death in General Orders, the Adjutant General says: "He was eminent, skilful, and successful in his profession as surgeon and physician, and distinguished for great administrative ability as the head of the medical department. He inaugurated the *Medical History of the War;* he founded the Medical Museum, and he brought the Medical Department to the highest state of efficiency. . . . At the time of the assassination of President Lincoln and the attempted assassination of Secretary Seward, he attended at the death-bed of the one and ministered with untiring energy and skill to the successful restoration of the other. So during the long illness of President Garfield, he was one of the distinguished surgeons of the land, who for days and nights served in the chamber of the dying President. During these long protracted hours of anxiety and care, his own health gave way, and from that moment to the time of his death he was an invalid. His career was one of honor to himself and of great service to his country."

The medical profession of the United States will emphatically endorse this just and discriminating eulogy.

Surgeon-General Barnes was buried with military honors at Oak Hill Cemetery, Georgetown, on Saturday last.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

THE CODE OF ETHICS.—The Council of the Central Organization of the New York State Medical Association has just issued the following circular, with a view of securing, through branch associations in every county in the State, united and earnest efforts to restore the Medical Society of the State of New York, and its auxiliary county societies, to their former position of affiliation with sister State medical societies, and also with the American Medical Association:

"*To the Members of the regular*
"*Medical Profession in the State of New York.*

"GENTLEMEN: Representing a large number of physicians associated to uphold the National Code of Medical Ethics, we beg leave to ask you to consider the importance of the object.

"The so-called New Code recently adopted by the Medical Society of the State of New York, sanctions fellowship, by means of consultations, with all practitioners who are 'legally authorized to practise medicine.' This sanction extends to practitioners who have adopted designations intended to distinguish them as belonging to sects apart from, and hostile to, the regular medical profession, and who are organized in order to lessen public respect for this profession and for its members. Will you not seriously consider the question whether under these circumstances affiliation by any act with sectarian or irregular practitioners is consistent with a due regard for the honor of the profession, or with a proper sense of self-respect?

"The New Code has dissevered all connection by representation, of the Medical Society of the State of New York and its auxiliary County Medical Societies with the American Medical Association, and also with the State Medical Societies of the several States of the Union. At the last meeting of the American Medical Association (1882) the Judicial Council decided as follows: 'Having carefully examined the Code of Ethics adopted by the New York State Medical Society, at its annual meeting in February, 1882 (as furnished by the Secretary of said Society), the Judicial Council find in the said Code provisions essentially different from, and in conflict with, the Code of Ethics of this Association; and therefore, in accordance with the provisions of the ninth by-law of the American Medical Association, they unanimously decide that said New York State Medical Society is not entitled to representation by delegates in this Association.' The following is the by-law referred to in the foregoing decision: 'No State or local Medical Society, or other organized institution shall be entitled to representation in this Association that has not adopted the Code of Ethics, or that has intentionally violated, or disregarded, any article or clause of the same.'

"We submit to your consideration that the substitution of the NEW CODE for that adopted by the American Medical Association has inflicted upon the medical profession of this State a great injury and disgrace.

"It is believed that the recent action of the New York State Medical Society in relation to the Code of Ethics is not sustained by the sentiment and judgment of the great majority of the medical profession in the State. But even granting that they who are opposed

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to this action are in the minority, it must be admitted that the number is very large. The effect of the action of the State Society, if persisted in, will be a division of the profession of the State into two parties. In view of the evils which cannot but follow such a division, and the many advantages of harmony, we appeal most earnestly to those who have been led to approve of the substitution of the New Code for that of the National, to reconsider the matter, and we solicit the active coöperation of all who are in favor of the National Code, in concerted efforts to effect, as speedily as possible, a reversal of the action of the Medical Society of the State of New York at the annual meetings in 1882 and 1883.

"Communications from societies and individuals who are in sympathy with associations for upholding the National Code of Ethics, and resisting any modifications of that Code which does not emanate from the American Medical Association, may be addressed to JOHN H. HINTON, M.D., No. 41 West 32d Street, New York City.

"Abram DuBois, M.D., J. W. S. Gouley, M.D., Wm. T. Lusk, M.D., Austin Flint, M.D., John H. Hinton, M.D., Samuel S. Purple, M.D., Austin Flint, Jr., M.D., Samuel T. Hubbard, M.D., T. Gaillard Thomas, M.D."

The advocates of the New Code are also at work. Under date of March 30th, they issued the following circular:

"DEAR DOCTOR: You are earnestly requested to attend a meeting to be held at the residence of Dr. Abraham Jacobi, 110 West 34th Street, on Friday evening, April 6th, at 8.30 o'clock, for the purpose of considering the present status of the ethical question.

"Yours respectfully,

"ALFRED C. POST,	S. O. VANDERPOEL,
"C. R. AGNEW,	ROBERT F. WEIR,
"FORDYCE BARKER,	A. JACOBI,
"W. H. DRAPER,	A. E. M. PURDY,
"F. N. OTIS,	THOS. ADDIS EMMET,
"H. B. SANDS,	ALFRED L. LOOMIS."

In response to this invitation, more than fifty physicians, representing various sections of the State, were present.

Dr. Jacobi said, in calling the meeting to order, that the opposition of those who favored the Old Code had been persistent, and was at the same time carried on secretly. It had gained some strength, and it was necessary that the public and physicians who are not informed on the subject shall learn what has been done.

Dr. Post was elected Chairman, and Dr. F. R. Sturgis, Secretary. In the informal speeches that followed, it was the unanimous sentiment that the New Code should be sustained in any event. Some of the physicians were in favor of making a determined fight at once. Others wanted the whole matter ventilated thoroughly but quietly, and in a spirit of conciliation, in order to avoid the split which they said the Old Code men wished to make.

It was said that the Old Code had been obsolete for years, when the New Code was adopted it was simply a question of New Code or no Code. The New Code, by leaving it in the option of regular physicians to consult with homœopaths, merely broke down the barriers that separated both schools.

The Chair appointed a committee of fifteen to consider the matter, and to report a series of resolutions thereon. Those resolutions will be distributed throughout the State for the information of the profession. The report will be made at a meeting to be called shortly. The committee are, Drs. Loomis, Sands, Weir, Post, Sturgis, Little, Barker, and Roosa, of New York; Ely, of Rochester; Hutchins, of Syracuse; Potter, of Buffalo; and Pilcher and Prout, of Brooklyn. This committee will report a plan of action. Among the physicians present from out of town, were Drs. Bailey and Vanderpoel, of Albany; Dr. Hutchinson, of Utica; Dr. Adams, of Carmel, Putnam Co.; Dr. Potter, of Buffalo; and Drs. Ely and Stoddard, of Rochester.

A professional writer describes the existing state of medical politics in New York State as follows:

The sad and lamentable situation in which members of the profession of almost the entire State are placed at the present moment—disfranchised and shut out from affiliation with their brethren of the National and State Medical Societies of the Union, through injudicious and reckless legislation—is one which cannot fail to enlist the sympathy and the earnest efforts of the good and true men of our country to overturn. The efforts of certain aspiring, but indiscreet specialists, which have been realized to effect unwise legislation in the profession, and to permit affiliation with all "legally qualified practitioners," many of whom are of undoubted quackish proclivities, and who have no claims to honorable recognition as physicians but that which comes through the ill-advised, levelling, and specious "Registration Act," have already received, and will continue to receive, the just censure and condemnation of all who hold professional obligations sacred, and who believe that blighted honor is the legitimate fruit of broken pledges.

The *New York Tribune*, in commenting on this state of affairs, says: "Nothing could better illustrate the earnestness of the physicians in the present contest over the ethical code of the American Medical Association than the thoroughness of the work of organization now going on. The State Medical Society cannot consider the question again until next February; yet it is probable that long before that time nearly every regular practitioner in the State will have been asked to commit himself by signature for or against the re-enactment of the Old Code. When next a pitched battle is called, therefore, the contestants will go into the field each side with a perfect knowledge of not only the number, but also of the personality of the other. This city has already been very thoroughly canvassed, and a large majority of the eight hundred or nine hundred members of the County Society have formally arrayed themselves under their colors. The canvass is now to be extended all over the State, and rival literary bureaus have begun to prepare the mind of the rural practitioner for the irrepressible conflict.

"In the medical reviews the controversy has been going on for several weeks. The two largest medical papers in this city are pronounced in their opposition to the Old Code, with this difference: While *The New York Medical Journal* believes the New Code to be a step in the right direction, its preference is for no code at all; *The Medical Record* is 'flat-footed' in favor of the New Code."

WASHINGTON.

(*From our Special Correspondent.*)

THE NATIONAL MEDICAL LIBRARY AND THE LIBRARY OF CONGRESS.—An article has recently appeared in one of the weekly papers of Washington, *The Sunday Herald*, which deserves more than a passing notice. It comments upon the great increase in value of the libraries of Washington, of the increased demand by readers for works printed in foreign languages, and stigmatizes as a fraud the National Medical Library, because its Librarian, Dr. Billings, has found it has grown to such dimensions, and to be of such importance, that he does not care to have it lost in the mass of books which have long since grown out of Mr. Spofford's control, as the Librarian of Congress. Not that

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Mr. Spofford is responsible for this loss of the control—for it probably causes him more positive chagrin than any one else concerned in the matter—and not but that he is as capable a man as can be found for conducting a library many times its present size, but the U. S. Congress *will not* help him out of his dilemma.

This newspaper writer makes two statements which show that his information is obtained from unreliable sources. He says: "But the general public has no library." The rooms which contain the books of the library of Congress are now so heaped up with volumes that the librarian and his assistants have scarcely room to turn around in, and every now and again there comes from the upper stories an unexpected book-slide, which imperils literature and brains alike, both being top-heavy. Notwithstanding this condition of things, there are always tables kept vacant and convenient for the express use of the general public; and a visitor can always see a fair proportion of boys with Beadle's dime novels, or their progenitors, our colored brethren, with big books containing dictionary words, and cranks taking notes from a mass of odds and ends, seated at these tables and using them as freely as they please. It is astonishing sometimes to see how much trouble is taken to furnish an applicant—and he may be of the unwashed general public—with the literature he asks for. It is very probable that Mr. Spofford has still in the library a few anatomical works, with plates, for pruriency of whatever age, to study the organs of generation, etc., from, and it is certain that boys cannot pursue such studies advantageously in the National Medical Library.

He says, further, that the National Medical Library is held for the exclusive benefit of a few people in the Surgeon-General's Office and their friends. Very true, but their friends seem to embrace the whole of the medical profession, judging from the statement made in Congress on February 21st, where it was shown that during the past year, books had been loaned to Boston, New York, Philadelphia, Baltimore, Chicago, Cincinnati, St. Louis, and other cities; and other people had better let the great majority of these books alone. "That the library has published nothing, aside from the *Medical History of the Rebellion*, which was a mere complication of other peoples' writings by Dr. Woodward and his associates." This, in the face and eyes of the three volumes now published of the *Index Catalogue*, is truly a complication all around. What does the writer expect the library to publish? He meant of course, compilation, but he makes a statement which might have come from a high private in the ranks, or perhaps a first-class clerk *c'est toute la même chose*, as these are the men who are the most apt to complain of the work done by them, which they assume their superiors in rank simply sit down and enjoy the fruits of; for the higher the position is, which a man holds in such work, the better able is he to appreciate the responsibilities and qualities of the one above him.

But, although we may treat this matter in a spirit of raillery, still it has its serious aspect, and the profession may yet be called upon to express an opinion as to what shall be the ultimate destination of the present National Medical Library. Mr. Spofford favors a vast general library, which shall absorb this as well as all other libraries now under the control of the United States Government in Washington. His scheme is to allow the various departments all the books they may require for working purposes, *i. e.*, their tools; but that all books beyond these shall be put into the general library, and thus avoid the expense of duplicating costly books.

The statement made by the *Herald* writer, that there was an understanding between the two librarians that, when the *Medical and Surgical History of the War of the Rebellion* was completed, the books now constituting the National Medical Library should be merged into the Library of Congress, requires explanation. When the present librarian of the Surgeon-General's Office took charge of the books, there were between two and three thousand volumes on hand; these soon grew to the number of thirty thousand volumes; and it was then, with the *Index Catalogue* as a determined project in the mind of the librarian, and as a stimulus for absorbing all available material, that the medical matter in the Library of Congress was asked for, and Mr. Spofford's coöperation was requested. The argument was used that there was not, even at that time, proper accommodation for these books; that they could be better utilized by the Surgeon-General's Library; and that it would be time enough, when the scheme for a universal library had taken proper shape and form, to consider the propriety of returning them. Under this arrangement some fifty volumes of medical periodicals, and, perhaps, some two thousand medical pamphlets, largely inaugural theses, and in great part representing a deposit from the Smithsonian Institution, were withdrawn from the Library of Congress. These books, we understand, are held at the disposition of the Librarian of Congress. No copyrights, of which two of every book so published are deposited, were allowed to be so used, but the Smithsonian accessions, which are varied and somewhat extensive, were diverted, so far as medicine was concerned, into this new channel.

Mr. Spofford is positive that there was a distinct understanding that all the books as they accumulated should, when the proper time came, be again a part of the Library of Congress; but these two librarians cannot arrange such matters amongst themselves with a view alone to their mutual satisfaction. It is for the profession to indicate how these books shall best be preserved, and how the growth of the library shall best be fostered for the benefit of the medical science.

The profession must necessarily look with jealousy and critical scrutiny upon any scheme that will take this library out of the hands of its present management. In the first place, they must recognize that the phenomenal growth of the library is really due to the peculiar fitness and untiring energy of its chief, Dr. Billings, and in the judgment which he has shown in the selection of his assistants. His personal interest also in general matters which affect the profession has given him a much wider scope and larger field to draw from than would ordinarily be at the disposition of one who was simply a librarian. They must further recognize that medical men should always have charge of the purchase, selection, and arrangement of medical literature; and to make it satisfactory to those who are to profit by it, any other arrangement would require a staff of medical men who, if their abilities are to be in any way commensurate with the duties they would be called upon to perform, would require higher salaries than those of the general assistants to librarians. Further, who shall decide what books are necessary to the work of a department, and what books are not? This involves nice questions that might cause much discussion.

Since the development of the National Museum, the Smithsonian Institution draws constantly and extensively upon its deposit in the Library of Congress for the works which it needs to retain as its working library; and the Medical Museum in the same way requires a large amount of books of reference to be constantly at hand. If it was necessary in the first signs of vigorous growth of the Surgeon-General's Office and the Museum, for Dr. Billings to induce the Librarian of Congress to allow the use of these books, and to aid in obtaining further appropriations for in-

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creasing their number, it certainly now, in the full fruition, becomes even yet more and more important that the collection should be kept up and added to. The National Medical Library is freely open for consultation, and if it is not more accessible, and is in daily peril of destruction, it is the fault of the United States Government, which fails to provide it with a suitable building.

In the last days of the session of the last Congress, too late for action, a report was presented from the Committee on Public Buildings and Grounds, recommending the purchase of a site, and the erection of a fire-proof building thereon, to contain the records, library, and museum of the Surgeon-General's office. The report set forth the insecurity of the present building used for the purpose—its walls, far out of plumb, in danger of falling, its roof not fire-proof, and its surroundings of frame shanties. It recommended as a site the neighborhood of the National Museum, and a building to cover an area of about 21,000 square feet, *i. e.*, about 1,350,000 cubic feet, to cost not more than $200,000. This allows for the diminution in time of the clerical force of the record and pension divisions, and consequently room for the laboratory and necessary scientific work of the museum. May it be introduced early and successfully at the next session.

CANADA.

(From our Special Correspondent.)

MEDICAL SCHOOLS.—The Annual Convocation of McGill University, for conferring degrees in medicine, was held on the 31st inst., when thirty successful candidates were presented.

At the Montreal School of Medicine (French) thirty-three students have passed the final examination, and will receive the degree from Victoria College, with which the school is at present affiliated.

At the convocation of Bishop's College, held on the 5th, the degree of M.D. was conferred on three candidates.

The examinations of the Ontario Medical Council, for the license to practice in that province, began at Kingston and Toronto on the 3d.

LAVAL UNIVERSITY.—A recent Papal decree settles finally the question of the Montreal Branch of this College, and has created no little excitement among French-Canadian members of the profession, as the Faculté de l'Ecole de Medicine is required not only to desist from further opposition, but to sever its connection with Victoria College, Coburg, a Protestant institution, from which the students obtained degress. What its action will be remains to be seen.

MEDICAL ASSOCIATION OF GEORGIA.—The thirty-fourth annual session of the Medical Association of Georgia will be held at Athens on the 18th inst.

THE UNIVERSITY OF LOUISVILLE held its forty-sixth annual commencement on February 27th. Diplomas were given to sixty-eight candidates. Dr. Theophilus Parvin delivered the valedictory address on behalf of the faculty.

THE ANNUAL COMMENCEMENT OF THE MISSOURI MEDICAL COLLEGE was held in St. Louis on the afternoon of March 6th. The valedictory address was delivered by Dr. John Snyder.

AT THE ANNUAL COMMENCEMENT OF THE ST. LOUIS MEDICAL COLLEGE forty candidates received the degree of Doctor in Medicine. A portrait and marble bust of the late Dr. John T. Hodgen, Professor of Anatomy in the St. Louis Medical College, were presented by Dr. E. H. Gregory. Dr. Boisliniere delivered the valedictory address.

THE ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF VANDERBILT UNIVERSITY was held on the evening of February 26th. The degree of Doctor in Medicine was conferred on one hundred candidates. Dr. J. W. Dodd delivered the faculty address to the graduates.

NEW ORLEANS, LA., AND THE SANITARY COUNCIL.—New Orleans will be largely represented at the meeting of the Sanitary Council of the Mississippi Valley, at Jackson, Miss. Delegates have been appointed by the City Council, the Auxiliary Sanitary Association, the Medical and Surgical Association, the Orleans Parish Medical Society, the Chamber of Commerce, the Brokers' Exchange, the Cotton Exchange, the Stock Exchange, the Mechanics', Dealers', and Lumbermens' Exchange, and the Illinois Central Railroad Company.

The representatives of these bodies held a meeting, March 31, which was attended by many gentlemen who were not delegates, among them some members of the Louisiana State Board of Health. The object of the meeting was to discuss the questions which would be brought up at the coming meeting of the Sanitary Council of the Valley, and to formulate some manner of harmonizing action. Enquiry was made of the members of the State Board present, whether that Board would be represented at the Council, and whether any assurance could be given that the Board would immediately report any actual cases of yellow fever, and give the benefit of the doubt in suspicious cases to the people of the neighboring States. In reply, it was stated that it was inexpedient for the Board to be represented at the meeting of the Council—that the relationship existing between the Board and many members of the Council is such that it would be unwise for the Board to have a delegation at Jackson.

It was understood that the two objects which would probably be discussed at the meeting of the Council, were the river and railroad inspections, and the epidemic fund of $100,000, appropriated by Congress and placed at the disposal of the President. Mr. Clark, of the Illinois Central Railroad, said that if every other resource failed, he would be willing to pay for the inspections himself.

BANQUET TO DR. HOLMES.—DR. OLIVER WENDELL HOLMES was entertained at a banquet at Delmonico's, on Thursday evening, by the medical profession of New York.

A MEDICAL "COLLEGE" SCOTCHED BUT NOT KILLED.—A judgment of the New York Supreme Court against Robert A. Gunn and others, originators of the "United States Medical College," has been received at the office of the Board of Health of New York. This institution, it is declared, never has been incorporated as a medical or surgical college, and does not possess the powers or franchises of one. The persons named in the judgment are therefore restrained from granting medical diplomas. The Bureau of Vital Statistics was warned to "reject and refer to the Honorable Board of Coroners all certificates of death signed by graduates of the above-mentioned college, as they have no legal standing as physicians."

In the mean time, a bill has been passed by the State Assembly and is now in the Senate, which is believed to be an attempt to resuscitate the United States Medical College of this city, and nullify the judgment obtained recently in the Supreme Court, declaring it to be not properly organized. The bill was never sent

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to a committee in the Assembly, but by unanimous consent was read twice and ordered to a third reading. It was heard of by chance, and by hard work a hearing has been arranged for before the Senate Committee on Miscellaneous Corporations. The bill is entitled "An Act to Legalize and make Valid the Incorporation of Certain Scientific, Medical, and Literary Colleges and Universities," etc., and amend certain previous acts.

The amended act provides as follows:

"All scientific, medical, and literary colleges, universities, and all associations of five persons or more, a majority being citizens and residents of this State, which have filed their several certificates with the intention of organizing or incorporating under said acts a scientific, medical, or literary college or university, and which have reported to said Regents within the two years last past, are hereby declared to be and to have been legally incorporated, upon the filing of their said several certificates, for the purposes set forth therein, and with all the rights, powers, and authority incident to and possessed by corporations duly organized for such purposes; and all by-laws heretofore made by such colleges, universities, or associations, all elections held, and all degrees and diplomas conferred, and all the official acts and proceedings of the trustees named in such certificates, and of their successors, incident to said purposes since the filing of said certificates, are hereby ratified and confirmed, and all rights arising therefrom are hereby secured and perpetuated; and all such colleges and universities shall be subject to the same duties, liabilities and obligations, and to the same control and visitations of said Regents as colleges and universities chartered by said Regents."

Health in Michigan.—Reports to the State Board of Health for the week ending March 31, 1883, indicate that rheumatism, consumption, bronchitis, and dysentery increased, and that remittent fever and whooping-cough decreased in area of prevalence. Compared with the average for the month of March in the preceding six years, measles and influenza were more prevalent, and whooping-cough and remittent fever less prevalent during the month of March, 1883.

Including reports by regular observers, and by others, diphtheria was reported present during the week ending March 31st, and since, at fourteen places, and scarlet fever and measles each at seventeen places.

Typhoid Fever in Providence.—The increase of typhoid fever in this city within the last two weeks has given rise to considerable excitement, which has been increased by exaggerated and unreliable statements. We have obtained from the Superintendent of Health the facts, from which the following statement upon the subject is made. After the great prevalence of fever in November, amounting to an epidemic for a short period, the disease gradually decreased until, during the month of February, only half a dozen cases were reported. In the first half of March there were very few cases. From the 20th of February to the present time, April 7th, there have been seventy-five cases reported in all. Of these, the date of beginning was not given in six cases. This leaves sixty-nine cases. Of these, there were only fourteen which commenced from the 20th of February to the 20th of March. At the latter date there was a sudden and rapid increase, and in the eight days, from the 20th to the 27th of March, inclusive, forty-eight cases of the disease commenced. Nine cases were reported as commencing on the 25th of March. Since the 27th of March the disease has as rapidly decreased, and only seven cases commenced in the city from the 28th of March to the 7th of April, inclusive. None were reported as commencing in the last four days of last week.

In regard to the location of the disease, it has been generally the same as last fall, the greatest number of cases being in the southwest portion of the city.

It is probable that the disease has reached and passed its height, and is now on the decline; and that as the weather grows warmer it will cease. There is nothing in the facts thus far that would justify any panic on the subject; nothing that would warrant the exaggerated statements that have been made of the prevalence of the disease in certain portions of the city; nothing that confirms the theories so persistently promulgated, of the cause or causes of the disease.

Communicable Diseases in Michigan.—The State Board of Health has issued, in pamphlet form, that portion of its annual report for 1882 which treats of the diseases diphtheria, scarlet fever, and smallpox, for the restriction of which special efforts were made during the course of the year. As soon as information was received, officially or otherwise, of the existence of any of these diseases in a locality, the secretary of the State Board communicated with the local authorities, urging them to prompt action, and transmitting documents containing concise directions for carrying out the best methods of preventing the spread of the contagion. Special reports were received from 162 localities where diphtheria prevailed; from 82 places where scarlet fever was present; and from 61 places where smallpox had made its appearance. From the localities which reported diphtheria as present, a total of 1,206 cases were reported, and 296 deaths; but these figures are acknowledged to be below the actuality. The 82 localities infected with the scarlet fever poison reported 284 cases, and 48 deaths. Of smallpox, 589 cases were reported, 159 of which terminated fatally. In twenty-one instances, this disease was brought direct from Chicago; in several instances the importation was from Cincinnati; immigrants by the steamship "Cimbria" occasioned an extensive outbreak; immigrants introduced the disease also into Port Huron twice, and into Detroit twice; the first case, in Plainwell, was contracted in a paper mill. That the efforts of the State Board were productive of good, is very clearly manifested by glancing over the special reports. Commenting on the reports on scarlet fever, Dr. Baker says: "The vital statistics of this State show that for the five years just before the State Board of Health was established, the deaths returned as having occurred in Michigan from scarlet fever averaged 589 each year, and since then, only 412 each year; an apparent saving of 177 lives, on an average, for each of the seven years—1874-'80; or a total of 1,239 lives in seven years. Though more, perhaps, has been accomplished with scarlet fever than with diphtheria, it is believed that in the immediate future events will show, as a result of the work of this Board, a vast improvement in public opinion regarding diphtheria, and, consequently, a great saving in human life from loss by that disease.

State Board of Health, Michigan.—In the meantime the Legislature, in its wisdom, is considering the abolition of this Board (House Bill, No. 68). We are pleased to find, however, that the citizens have a better appreciation of the work of the Board. From the Legislative Journal of March 28th, we extract the following:

Whereas, No State service is of greater importance than one whose purpose is to gather statistics of facts to the end of securing a better knowledge of the causes of sickness, and of disseminating such knowledge among the people as will enable them to avoid such causes, and thereby save themselves the expense, suffering, and death that might not otherwise be avoided;

And whereas, The health service known as the State

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Board of Health has done a great work to this end, and can still do more, it has become indispensable to the wants and welfare of our people. Therefore we, citizens of Reed City, State of Michigan, most earnestly request that you do your utmost to defeat House Bill, No. 68, so far as it relates, or any action hereafter that may cause it to relate, to the abolition of the State Board of Health, and any other measure intended to abridge its work and influence.

Referred to the Committee on Public Health.

DANGER FROM HAVANA.—From the 17th to the 30th of March, six vessels arrived at Charleston, S. C., from Havana, Cuba, with foul bills of health. They became infected with yellow fever during their stay in Havana, and lost twenty men by death from this disease, out of the sixty-nine which constituted the aggregate of their crews. No sickness occurred during the voyage, and none since their arrival at the Charleston quarantine station. This extent of disease in Havana so early in the season, appears to Dr. F. Grange Simons, Chairman of the Committee on Quarantine of the State Board of Health, to urge the need for special care, lest the disease be brought to our shores prior to the time when the stricter rules of quarantine are applied. Dr. Simons has notified these facts to the National Board of Health, and proposes bringing them before the State Board at its quarterly meeting, that suitable action may be taken.

PROPAGATION OF MEASLES.—In his bulletin for the week ending March 24th, Dr. P. H. Bryce, Secretary of the Provincial Board of Health of Ontario, Canada, refers to the exceedingly rapid spread of measles in six of the sanitary districts, and suggests attention to preventive measures. "Whatever the physical conditions are tending to propagate measles, it must be manifest to all that the total disregard in most cases for the isolation of patients affected with it explains how, being once present, its extension is carried on. Its infectiousness ought to be urgently called to the notice of all, since its contagiousness is fully developed by the second day of its invasion after some feverishness and catarrh are noticed, and two or three days before the rash appears; while the fact of the patient's unusually rapid improvement after the eruption is well out, makes it possible for the patient to spread the disease during his period of convalescence."

OBITUARY RECORD.—M. BISCHOFF, Professor in the University of Munich, well known by his many valuable works on embryology, has recently died, at the mature age of 75 years.

NOTES AND QUERIES.

HEITZMANN'S MICROSCOPICAL MORPHOLOGY.

To the Editor of THE MEDICAL NEWS.

SIR: In number 637 of the N. Y. *Medical Record*, I find a rather harsh and bitter criticism of C. Heitzmann's *Microscopical Morphology*, which, in justice to the author of an instructive, valuable, highly practical, and useful work, I desire, through the columns of your esteemed journal, to correct, especially since the anonymous critic has seen fit to cast a reflection upon me by mentioning my name among other collaborators of Heitzmann's laboratory in a manner which seems to indicate that I was not fully competent to write satisfactorily upon the subject of my study, published by the Academy of Sciences of Vienna, vol. lxxiii., which Professor Otto Frankenberg, of the Starling Medical College, of Columbus, Ohio, has kindly translated into English, and published in the *Ohio Medical and Surgical Journal*. An abstract of this appears in Heitzmann's book, pp. 504–510, inclusive, entitled "The Changes of Epithelia Produced by Growth of Myeloma."

Though I do not claim to be as world-renowned an histologist as the critic of the *Record* may be, from what I know, still I may say, without fear of contradiction, after many years of study, that I am able to see what is claimed by Heitzmann as the reticular structure of living matter, and that it is not, as the critic has it, the reticulum of cellular death, since everybody can see it in living amœbæ, in salivary and colorless blood, or pus-corpuscles, etc. Furthermore, I may add that Prof. S. Stricker, of Vienna, has recently corroborated the two main discoveries of C. Heitzmann. These are that so-called *protoplasm* has a *reticular structure* in a live condition, as proved in fresh saliva-corpuscles while alive and in motion; and, secondly, that the basis substance, or intercellular substance of Virchow, is likewise endowed with properties of life. In the face of this corroboration, I trust it is unnecessary to say more in defence of the correctness of C. Heitzmann's discovered and recently advanced theories. I am sure the critic will be willing to admit that in comparison with Stricker's authority, his bitter criticism deserves very little consideration from a scientific standpoint.

The critic maintains that America is ever ready to concede to Europe a well-earned preëminence as regards histology. Ten years ago this was perhaps the case, but now we have laboratories and teachers of histology in this country who have no superiors in in any university in Europe.

Finally, the critic advocates teasing, tearing, mounting of specimens in balsam, etc. By this he really shows that he yet depends upon some European teachers, and was not willing to change the methods which are to-day being admitted as improper ones in many of the histological laboratories abroad.

THE NEWS being read by most, if not all, of the readers of the *Record*, and many others, I thought I would request you to publish these few remarks of mine in refutation of an unjust and unjustifiable criticism of a good work, which, I think, deserves rather praise than fault-finding.

I am, sir, yours, very respectfully and truly,

RUDOLF TAUSZKY.

NEW YORK, March 31, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 2 TO APRIL 9, 1883.

HAMMOND, JOHN F., *Colonel and Surgeon.*—Granted leave of absence for six months on surgeon's certificate of disability, with permission to go beyond the sea.—*Par. 6, S. O. 75, A. G. O., April 2*, 1883.

HAMMOND, JOHN F., *Colonel and Surgeon.*—To be relieved from duty in the Department of the East, and to report by letter to the Surgeon-General, U. S. Army.—*Par. 7, S. O. 75, A. G. O., April 2*, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, JANUARY 1 TO MARCH 31, 1883.

BAILHACHE, P. H., *Surgeon.*—Detailed as member of Board for the examination of officers of the Revenue Marine Service, March 27, 1883.

MURRAY, R. D., *Surgeon.*—To proceed to Vicksburg, Miss., as inspector, March 24, 1883.

PURVIANCE, GEORGE, *Surgeon.*—To proceed to Cleveland, Ohio, to investigate management of hospital, January 22, 1883. Granted leave of absence for seven days, February 8, 1883.

AUSTIN, H. W., *Surgeon.*—To proceed to Gallipolis, Ohio, as inspector, January 9, 1883.

FISHER, J. C., *Passed Assistant Surgeon.*—Detailed as member of Board for the examination of officers of the Revenue Marine Service, March 27, 1883.

CARTER, H. R., *Passed Assistant Surgeon.*—To proceed to New Orleans, La., for temporary duty; thence to San Francisco, Cal., for duty, February 7, 1883.

PORTER, F. D., *Passed Assistant Surgeon.*—Granted leave of absence for thirty days, February 10, 1883.

GUITERAS, JOHN, *Assistant Surgeon.*—Granted leave of absence for thirty days, January 19, 1883.

WHEELER, W. A., *Assistant Surgeon.*—To proceed to Chicago, Ill., for duty, January 27, 1883.

ARMSTRONG, S. T., *Assistant Surgeon.*—To proceed to Key West, Fla., for temporary duty, February 1, 1883.

BENNET, P. H., *Assistant Surgeon.*—To proceed to Charleston, S. C., for temporary duty, February 19, 1883.

RESIGNATION.

PORTER, F. D., *Passed Assistant Surgeon.*—Resignation accepted, to take effect March 31, 1883. February 10, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, APRIL 21, 1883. No. 16.

ORIGINAL LECTURES.

ON THE TREATMENT OF NEURALGIA.[1]

A Clinical Lecture

BY PROF. DUJARDIN-BEAUMETZ,

MEMBER OF THE ACADEMY OF MEDICINE, PHYSICIAN TO THE HOPITAL ST. ANTOINE, ETC., PARIS, FRANCE.

GENTLEMEN: Having finished the group of medicaments which have a direct action on the nerve or nerve-cell, we come to our second group, revulsive or substitutive medication, which sometimes gives remarkable results in neuralgia. This group comprises a variety of derivatives, from simple rubefacients to the most powerful escharotics.

First, then, frictions of the painful region have been advised; these to be more or less energetic; and, to render them more efficacious, it has been recommended to make these frictions with certain cutaneous irritants, and especially turpentine. In this category ought to be placed the celebrated remedy for sciatica of the policeman of Lyons, which consisted in enveloping the whole thigh in a Burgundy pitch-plaster, and which has cured some inveterate cases. In England, there is another popular remedy which consists in covering the painful limb with flowers of sulphur, and over the whole applying a firm flannel-bandage. Of still more general use is the mustard sinapism, which, in some cases of intercostal neuralgia, suffices to effect removal of the pain.

Next comes the vesicant, which is in current practice in the treatment of neuralgia. These vesicants may be of different kinds: sometimes the strong water of ammonia is applied locally till the cuticle is destroyed; sometimes the cantharidal blister, medicated or not with opium, is used.

In order to obtain relief with these blisters, they should be applied over the painful points. In sciatic neuralgia, I have been in the habit of employing a long, narrow blister, three centimetres in width and extending the whole length of the thigh; this blister is applied, as near as possible, over the course of the sciatic nerve. I can, from experience of its utility, recommend this as a most excellent mode of treating sciatica.

In other circumstances, when the neuralgia is more obstinate, it has been the custom to resort to cauterizations of greater or less depth. Legroux was in the habit of employing sulphuric acid; with a stick soaked in the strong acid, he marked out on the painful member the branches of the sciatic nerve. This method is a severe one, and is no longer employed; but instead we use the hot iron, and in particular the Paquelin cautery; with this cautery, points are made all along the nerve. If you prefer transcurrent cauterization, you lightly brush the skin covering the nerve or nerves affected with the Paquelin cautery, heated to a white heat. These cauterizations are a powerful means of cure, and, being little painful, you can always resort to them when other means fail.

In order to act still more directly on the diseased parts, it has been proposed to penetrate to some depth into the tissues, and this is what has been realized by acupuncture. You know the use that has been made of acupuncture in the far east—it was there that we learned the manner of performing it; this revulsive method which was much in vogue at the beginning of this century, owing largely to the labors of Jules Cloquet and Dantu of Vannes, is now altogether abandoned. The principle, however, has been adopted by Baunscheidt in that little invention of his called *réveilleur de la vie* [life-awakener], and sold by our instrument-makers under the name of *Baunscheidt's Dermabioticon*, which, twenty years ago, excited so much enthusiasm. This instrument consists of a bunch of pins which are made to penetrate the skin by a spring, and, in order to give a more intense revulsive action, the pins are dipped, before using, in croton oil, or in a highly irritant mixture which Baunscheidt devised, of equal parts of oil of black pepper and oil of mustard. Baunscheidt's "Life-awakener," with its accompanying oil, has had a great celebrity in the treatment of sciatica, but is rather a thing of the past than in actual use at the present day.

A modification of acupuncture, electro-puncture, much used by Magendie with galvanic currents in the treatment of neuralgia, has also had its day, and is now abandoned. Medical electricity has, however, utilized these acupuncture needles in galvano-thermy, which is one of the most powerful revulsive methods that I know of, and the excellent effects of which I have seen in my own service and in that of my friend Perier. This operation is performed with the condenser of Planté, appropriated by Trouvé to medical practice; with a wire heated to a red heat by electricity, points are made to the depth of half a centimetre, and some little distance apart, over the tract of the affected nerve. The punctures are followed by considerable inflammation, but they often bring the greatest relief to the patient.

I need only glance at another method of making punctiform eschars, a horribly painful method, now happily gone out of fashion. I allude to *aquapuncture*. A filiform jet of water is projected by means of a force-syringe with such violence upon various points of the affected nerve that the skin is perforated, often to the depth of several millimetres, in many places. Siredey is responsible for the vogue which this method has had.

Luton's mode of treatment of sciatica is based on the same principle, though the manner of application is different. The Professor of Rheims has proposed to introduce by the hypodermic syringe certain irritating substances, as nitrate of silver, which are injected over the painful spots. The caustic solution is made with one part to ten, or five. These irritating injections determine an artificial anthrax, which results either in induration of the tissues or in abscess. The partisans of this revulsive procedure claim signal success in its use. Out of Luton's fifty cases of sciatica, forty-eight of them are reported permanently cured. Rupaner (of Boston), Bertin, Le Dentu, Damaschino, Gerin Rose, Dureau, and Angelé, all report good results from this operation, which Luton, the inventor, has designated as "subcutaneous injections for local effect." It cannot, however, be maintained that the operation is altogether certain or safe, and troublesome sequelæ have resulted, and are likely to result, from these irritating injections.[1] In certain cases, instead of

[1] Translated from advance sheets by E. P. Hurd, M.D., of Newburyport, Mass.

[1] These injections, first introduced and popularized by Luton, in 1863, are chiefly of use in that most rebellious of neuralgias—

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second cases, as shown by excellent photographs sent me by Dr. Domenico Peruzzi, of Lugo, have made good recoveries; and the fourth operation, in which he was an assistant, was too recent, when he wrote, to decide as to its prospective result. By the desire of Dr. Peruzzi, I here present the subject of this form of operation to the medical profession of the United States, a record of the first two cases having been furnished me in a twenty-two page quarto pamphlet, the contents of which were read by the operator before the Academy of Science of the Institute of Bologna, on February 11, 1883.

We are not to confound this operation of Loreta with that of resection of the pylorus, which has very little to recommend it, even as an expedient for temporarily prolonging life; and nothing, in view of the hope of an ultimate recovery; or with the more recent and promising one, of exsection of chronic ulcer of the stomach, although the risk may appear to be hardly justified by the immediate danger to life from the disease to be removed. But in the cases for which Prof. Loreta has devised his operation, there is the prospect of certain death by starvation and exhaustion, unless the mechanical obstruction is removed; and of recovery of health, with the reopening of the pyloric orifice, there being nothing in the nature of the disease rendering it incurable, as in the stenosis from cancer.

The dangers from "simple" ulcer of the stomach arise from perforation of the viscus; erosion of its arteries; adhesions and contractions of its walls; and *closure of the pylorus*. The last is a rare result, but the fact that three cases have come under the observation of a single surgeon in six months, shows that the operation for its relief is not an unimportant one. According to the observations of Dr. William Brinton,[1] the seat of ulcer of the stomach is at its pyloric extremity in sixteen per cent. of the cases; but the destruction of tissue, in a way to produce obstructive constriction under the process of healing, must be exceedingly rare in Great Britian, as he does not mention this stenotic result as an element of danger to the subjects of the disease. The experience of our own physicians is also in corroboration of that of Dr. Brinton. It is true that he does say of the ulcer that, "*in rare instances*, it forms a zone around the pyloric valve, or the pyloric sac," and we may imagine what would be the result of the cicatrization of such a lesion. He also remarks, that the healing of an extensive ulceration may seriously affect the shape and capacity of the stomach, giving it more or less of an hour-glass form, and that "in extreme cases the contraction amounts to an absolute stricture, which impedes the transit of food, and thus gradually causes great hypertrophy and dilatation of the over-distended segments of the stomach behind the obstruction;" but still he does not mention the possibility of cicatrization producing a fatal stenosis of the pylorus. In Italy, where pelagra affects 100,000 of her peasantry, due, it is thought, to the defective assimilation of an unhealthful diet, and the bad hygienic conditions under which they live, it is quite possible that pyloric obstruction may be less rarely met with than in England and America, and the operation of Loreta more frequently called for.

We are also to distinguish between the stenotic condition produced by the healing of an ulcer of the pylorus, and that resulting from a hypertrophic thickening of the valve, called by Habershon "fibroid degeneration of the pylorus." This cirrhotic infiltration, which has been attributed to a chronic interstitial gastritis, can only be distinguished from true cancer under the microscope, and differs very little from it as a mortal malady. Having examined this very rare disease post-mortem with a great deal of care, I cannot see that any operation for opening the pylorus, even where the disease may be confined to it, could be of any practical utility, any more than it would in a case of pyloric cancer. The operation of Prof. Loreta must, therefore, be confined to the form of stenosis produced by cicatricial contraction of the gastro-duodenal opening, a condition which can only be determined by a careful study of the history of each case, taken in connection with the evidences elicited by a cautious physical exploration. Fortunately for the cause of science and humanity, the first and second operations were successful. Had there been any error in diagnosis, requiring that the operations should not be completed, it is probable that the patients would have recovered from the exploratory incisions, as such an amount of abdominal traumatism need not, at the present day, be regarded as *very* dangerous. We now come to the record of the initial operation, as performed at Bologna, which want of space compels me to give in a very reduced form, as compared with the original report.

Case I.—Nicola Cecconi, born in Italy, of healthy parents, a railroad operative, aged 47, always enjoyed good health until the year 1863, when, at the age of 27, he received a severe blow in the epigastrium, after which gastric troubles commenced, manifested by imperfect digestion, a feeling of weight and distention in the stomach, and occasional attacks of vomiting. He continued, however, to labor and was able for some years to bear up against his dyspeptic condition; but in 1878 was obliged to apply to the Medical Clinic of Bologna for relief, his disease having slowly become more severe in character, the sensation of weight being changed to one of pain, and his vomiting being no longer simply of alimentary substances and mucus, but of blood also, at times freshly poured out and bright red, at others partly digested and blackish. He suffered also with many intestinal troubles, and, as always happens in this class of diseases, with constipation alternating with diarrhœa: he became finally pale, thin, feeble, and low spirited. The physician who had him in charge gave the diagnosis of "round ulcer of the stomach in the region of the pylorus," which was confirmed by the result of treatment, his health being restored after a residence of three months.

When he left the hospital he was so much improved that he went home in good spirits and resumed his work on the railroad. This soon brought

[1] Lectures on the Diseases of the Stomach, page 133. London, 1864.

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back some of his gastric sufferings, manifested by the sensation of weight in the epigastrium; the phenomena of indigestion, such as eructations, burning sensations, and acidity. Then his attacks of vomiting were renewed; undigested food being thrown up, followed by a sense of relief for some days, when there would be another attack. These symptoms in time became augmented in intensity and duration, so that by the summer of 1882, when Prof. Loreta's attention was called to his case, he was brought to a very pitiable condition of suffering, his only food being a little milk, which he retained for about half an hour before vomiting it; all other articles of diet being immediately rejected. He had formed an impression from his own sensations, that no food passed beyond a point in the right hypochondrium.

When admitted for final treatment in the "clinic," Cecconi presented a pale, emaciated appearance, and two days before the operation was reduced to a weight of 121 pounds. His abdomen was swollen in the epigastrium, where there were presented the evidences of dilatation of the stomach, palpation giving a sense of tension and elasticity, and percussion the clear resonance indicative of an accumulation of gas, the tympanitic region extending from the fifth rib to the umbilicus.

Fluid extracted by the stomach-pump presented a yellowish color, and contained small coagula of milk; it quickly reddened litmus paper. Left to stand, it soon separated into three strata, of which the upper was composed of frothy mucus, the middle of limpid whey, and the lowest of a substance having the character of a gray powder.

Under the microscope there were found no muscular fibres, no trace of *sarcinæ ventriculi*, no granules of starch, and no needles of fatty acids.

The pump was also made use of, to empty the stomach, so as to render it flaccid, but in this condition no evidence of the existence of a tumor could be detected in the abdominal cavity, other than a thickening at the pyloric end of the stomach. This growth was not well circumscribed, or nodular, but offered under palpation the characters which belong to "an organized phlogistic exudation," or hypertrophy of the pylorus. It was not regarded as cancerous, because the history of the case, the duration of the disease, and the condition of the man, were not indicative of the presence of this malignant growth; neither were there any marks of cachexia, or of the mechanical dropsy of thrombosis.

Prof. Loreta, bearing in mind the diagnosis given of Cecconi's case in 1878, its subsequent progress, and the fact that *Kleef, of Maestrict*, had resected a stenotic pylorus from a woman of thirty-seven, in which the closure was due to the cicatrization of a chronic ulcer; decided, in view of all the points presented, that the case before him was of the same character with that of Kleef, whose form of operation he did not follow, because of the great mortality of the method; he therefore devised a less difficult and dangerous measure of relief, and one requiring far less time in its performance.

The operation was performed on Sept. 14, 1882, under chloroform; the incision commenced to the right of the linea alba at a distance of 4 cm. (1½ in.) from the xiphoid cartilage, and was carried obliquely downward and outward for 15 cm. (6 in.) to a point 3 cm. (1¼ in.) from the ninth costal cartilage. Some arteries required ligation, and time was given for hæmostasis of the edges of the wound before opening the peritoneal cavity. This was not readily distinguished, because the gastro-colic omentum was united by old adhesions to the abdominal walls. These adhesions required to be slowly and carefully separated; after which others were found between the omentum and stomach, requiring the same treatment. These adherent parts had masked the examination of the pylorus, and produced, under palpation, the sensation of the existence of a morbid deposit occupying the epigastrium and right hypochondrium.

When the stomach was liberated from its adhesions its pyloric extremity was drawn out, and an incision made into it between, and at equal distances from, its two curvatures, commencing 3 cm. (1¼ in.) from the pylorus and extending 6 cm. (2⅜ in.) in length. The edges of this wound bled freely, and required compression with T-shaped pincettes. The index finger of the right hand was then introduced, and the pyloric opening found to be entirely closed up. By a careful rotation, with pressure and counter-pressure, one index finger was made to penetrate the pyloric valve, and after a time that of the other hand also. The fingers were set back to back, and an attempt made three several times by the operator to stretch the opening; but such was the amount of resistance on the part of the sphincter that he failed to accomplish his purpose. After a time, however, the parts began to yield, and the fingers were gradually separated until the pylorus was widely opened without any laceration. The operator in describing this, says that his fingers were separated to "a distance of about 8 cm.," which would give a circuit to the opening of about 9 inches. This must be an error, as the opening into the stomach made by the knife had but a circuit of 4¾ inches, which would limit the separation of the fingers to that extent, as the sphincter was but 1¼ inch from this opening.

With the pincettes still applied, the wound of the stomach was stitched up by the uninterrupted suture of *Gely*, which may be found described in the surgical work of Prof. Gross. Carbolized silk was used, with a needle at either end, and the first stitch made at the end of the wound nearest to the pylorus, a centimetre from it, and the punctures each a centimetre from the edges of the incision. After this wound was secured, that in the abdomen was closed with seven sutures of silver wire. In thirty-three minutes from the commencement of the abdominal incision the operation was completed and dressings applied.

The convalescence of Cecconi was a remarkable one, both from the operation and his prior condition: he suffered no pain during the operation, and gastric tolerance was reëstablished with the removal of the mechanical obstruction. On the evening of the day of the operation his temperature was 43°

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Cent. (98.6° Fahr.), pulse 72, and respiration 26: he became hungry in the middle of the day, and was given the yolk of an egg with some Marsala wine; and every half hour he was allowed a tablespoonful of coffee, all of which he bore well.

The highest temperature recorded after the operation was 38° C. (100.4° F.), pulse 76, and respiration 26. On the fourth day his bowels were moved by enema. On the fifth day he experienced some pain and inconvenience from the passage of gas in the intestines, and possibly of food through the pylorus. On the sixth day he ate some roast chicken twice, and on the seventh had a natural evacuation of the bowels. The first dressing of the abdominal wound was made at the expiration of eight days, and five of the seven sutures removed, the parts having healed by the first intention; the other two sutures were taken out two days later. The patient was out of bed for two hours on the seventeenth day, and by October 30th (46 days), had gained in weight 13½ pounds, increasing from 121 pounds to 134½ pounds.

On October 12th, Cecconi was discharged cured, a result which a probation of five months has only more satisfactorily proved.

CASE II.—Cesare Frabetti, 18, a native of Italy, suffered with dyspeptic symptoms from the age of eleven years, his mother being a victim of the same disease. He first vomited bread, which he had eaten in too large a quantity at the age given, after which he vomited more or less every day. Finally, he presented the decided symptoms of chronic ulcer of the stomach, having severe pain in the epigastric region and hæmatemesis. Early in December, 1882, Frabetti came under the observation of Prof. Loreta; he presented the physical signs of a dilated stomach, with an area of clear resonance equivalent to that given in the record of Case I. He vomited twice daily, and the fluid evacuated had the same characteristics as that noted in Cecconi's case. Every ten or twelve days he had a very small evacuation from the bowels; and his urine was normal in quantity, but pale and unusually fluid. In appearance he was pale and thin, feeble, and had an expression of melancholy.

Examined by the carbonic acid gas test of *Ebstein*, there was no evidence, when the stomach was distended, that any gas escaped through the pylorus. The evidences from examination of the fluid contents of the stomach chemically and under the microscope, and from palpation and percussion of the abdomen, were in favor of the disease not being of a malignant type. In fact, no morbid growth could be discovered in the pyloric region or elsewhere.

The operation was performed after the manner of the first one on December 22, 1882, but required in all fifty minutes, owing to a difficulty in locating the exact position of the pyloric valve. The stomach was sutured after the process of *Appolito*, which proved to be more quickly executed and equally efficacious as compared with that of *Gely*. One-half of the time of the operation (twenty-five minutes) was taken up in a patient search after the pylorus, which was opened to the extent of separating the fingers 5 or 6 cm. (2 to 2⅜ inches). In the stomach were found two plum-stones, which it was computed had been retained for two years, as the patient had been made to suffer so much by the last he ate, that he had not eaten any since 1880.

Frabetti, like Cecconi, had no febrile disturbance after the day of the operation. He was sustained by a milk diet, and consumed large quantities with impunity. In four days the intestinal circulation was reëstablished. The sutures were removed on the ninth day, and the patient was out of bed on the fifteenth day. At the time of the operation he weighed eighty-nine pounds, and in thirty-eight days he had increased this to one hundred pounds. Fifty days after the operation Frabetti was regarded as having been restored to entire health, which his photograph bears the evidence of in the expression of his face and contour of body.

Judging from the number of cases of *dilatation of the stomach* (gastroëctasia) existing in Europe, as shown by Kussmaul, Bernheim, Petrequin, Thiébaut, and others, a disease which is generally independent of pyloric stenosis; it is quite possible that the form of disease operated upon four times in Italy, may prove to be more common than might be supposed.

NOTE.—After the preceding was in type, I received, through Dr. Peruzzi, an account of the two additional cases, one of which he saw and reported, writing a short record of the operation for the *Raccoglitore Medico* of March 20, 1883, on the day of its occurrence, and subsequently completing the same in writing to me, so as to give its final result, which will be seen under "Case IV."

CASE III.—The subject of the operation was a woman (age not given), who was much exhausted from compulsory fasting, due to her inability to retain food, the result of pyloric stenosis. She was operated upon, at the Hospital of Cesena, Italy, by Dr. Mario Giommi, on February 1, 1883, and, owing to her prior condition, died of *shock* in twelve hours.

CASE IV.—This was previously referred to as the third operation of Prof. Loreta, and the one in which Dr. Peruzzi assisted him. The subject was a man, of forty-six years of age, who, like Cecconi, was a workman on the Southern Railroad of Italy. He was operated upon at the "Surgical Clinic of Bologna," on March 17, 1883, but in a physical condition much less promising than that of Cecconi or Frabetti. He had been the subject of chronic gastritis for seventeen years, and was emaciated, weak, and scarcely able to speak. The operator's diagnosis was *pyloric stenosis*, as the result of chronic pyloritis. He made the incision as in his first operation, and six inches in length, and opened the stomach to two and three-eighths inches. After sufficiently enlarging the stenosed pylorus, he closed the incision in the stomach by the suture of Appolito, as in his second operation, and dressed the abdominal wound after the manner of Lister. The operation, from the commencement to the closure of the abdomen, required twenty-eight minutes. The patient died of *shock* in thirty-seven hours; his condition prior to the operation giving but little hope of a favorable result.

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An autopsy was made in this case, the result of which will be given in the *Raccoglitore* of March 30th.

Here we have four operations performed by this new method, for the relief of pyloric stenosis, in a period of 184 days; showing that the condition of disease under treatment may be a comparatively common one in Italy: hence the value of digital divulsion in the estimation of the colleagues of Prof. Loreta, who are very complimentary in their praises of his ingenuity and originality in devising a plan of relief which promises excellent results, where the patients are not too much exhausted and emaciated before the operation. The first two cases are far better tests of the value and risk of the operation than the second two, whose deaths were almost a necessary result of gastrotomy performed *in extremis*. All honor to Professors Porro and Loreta for the reputation which their operations have brought to themselves and to Italy. Possibly the Loreta operation may have a future in Europe, which will make the name of its originator as famous as seven years' experience has made that of his Pavian colleague, whose "*utero-ovarian amputation*" was not performed four times, until near the close of its first year of probation, and not repeated by Prof. Porro himself for nearly seven years. The second success of his operation was in the fifth case; the third in the ninth; the fourth in the twelfth; and the fifth in the sixteenth. With favorable conditions for the operation, the method of delivery devised by Prof. Porro may be reasonably expected to save fifty per cent. of the women and eighty per cent. of the children, as it has done in Italy during the last four years, counting all the cases both hospital and private.

Thus far the Loreta operation has saved one-half of the cases; and judging from the registers of temperature, pulse, and respiration in the first two, and the rapid restoration of the powers of digestion, it cannot, *per se*, be a very dangerous one. Cases such as Nos. 3 and 4 can hardly be expected to survive the operation in the condition of prostration under which it was performed. Because patients do sometimes recover most unaccountably after abdominal operations, as I have a number of times seen, we must not look too confidently for such results where the subjects are in an unfavorable condition by reason of delay and loss of vital force. It strikes me that in the great improvements that have been made in rectal alimentation, it would be much safer in a case like No. 4 to prepare the patient for the operation by a course of bowel-feeding rather than run the risk of giving him the *coup de grâce* by the knife in his starved state. These cases differ in one respect from all other cases in which abdominal surgery is required for the saving of life, as the condition is simply mechanical and the result of a previously existing but healed lesion. There is no diseased tissue to be cut out, and time is not necessarily lost by emptying and resting the stomach, and nourishing the patient by the bowels. A test of a few days will suffice to show whether or not this is sound advice.

The safety of the gastric wound is largely due to the method by which it is sutured. The mucous coat is not to be penetrated. The best material is pure silk, *i. e.*, free from color, and sea-island cotton. The object of the form of closure is to make a perfectly water-tight one, and to bring peritoneal surfaces together to secure a rapid union. This is done by inverting the edges of the wound, and bringing its serous surfaces in apposition. The continuous suture of Gely does this perfectly, and there is but one knot when it is tied; the stitches are taken parallel with the line of incision, and after each pair are inserted through the peritoneal and muscular coats by two needles carrying one long silk ligature, they are crossed each to the opposite side for the next pair of stitches, and the silk left slack between. When all are taken, the pincettes are removed, and the loops of silk drawn in order, to the last, which is tied. This shuts in the silk and knot, and throws up a long ridge on the inside of the stomach; any water-pressure shuts the lips of this ridge tighter together, and no gastric juice or liquid food can escape into the peritoneal cavity. This stitch may be modified and made more simple of execution, but the same principle of action must be followed to secure an equally favorable result. There is no better suture than that of Gely, and not one in all respects as perfect, but there are others which will secure a water-tight closure with less time and delicacy in execution.

329 SOUTH TWELFTH STREET,
April 12, 1883.

TWO ORTHOPEDIC CASES.

BY AP-MORGAN VANCE, M.D.,

ORTHOPEDIC SURGEON TO KENTUCKY INFIRMARY FOR WOMEN AND CHILDREN, AND LOUISVILLE CITY HOSPITAL.

(*Read before the Kentucky State Medical Society, April 5, 1883.*)

CASE I. *Buck's Modification of Barton's Operation for Angular Bony Anchylosis of Knee-joint.*—In August, 1882, Mr. W., æt. 24, called on me for advice concerning a deformity of the right lower extremity, giving history of the trouble as follows: When about six years old, while at play, he received a blow on his right knee which caused considerable pain, followed in a few days by swelling and flexion, preventing the use of the limb.

He was treated by various surgeons, who attempted to overcome the deformity and subdue the inflammation, and about ten or fifteen years ago the limb was forcibly straightened.

Renewed inflammation, with abscess ensued, the limb soon assuming the position in which I found it, flexed at an angle of 90°. Several pieces of bone were discharged or removed by surgical interference, when the inflammation subsided. Since then he has walked by aid of a crutch with a stirrup on it. Upon examination the limb was found flexed at an angle of 90°, perfect bony anchylosis having taken place; the femur had become bowed anteriorly from the prolonged force brought to bear upon it in walking, the leg below acting as a powerful lever. Several cicatrices were found about the site of the joint. The limb was much atrophied, though the muscles acting between pelvis and thigh were well developed. The foot was in slight calcaneo-valgus, though there was left good action of the extensors.

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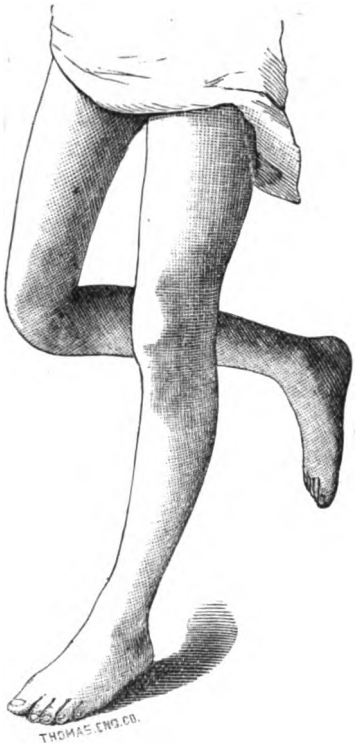
The patient wished very much to have his limb straightened, and after discussing the various procedures by which this could be done, and after consulting other surgeons, it was decided that the operation known as Buck's modification of Barton's operation should be done.

Fig. 1.



This consisted in the removal of a wedge-shaped piece of bone sufficient to compensate the angle of deformity, part of the condyles of femur and tibia, as well as the patella being included in the wedge.

September 27.—The operation was performed; Drs. Cecil, Murrell, Thomson, and Thum, assisting. Fig. 1 represents limb before operation.

The patient was in fair general condition, though somewhat nervous from anticipating the ordeal through which he was to pass.

An apparatus to receive the limb when straightened had been prepared, consisting of a leather hammock for the thigh, and one for the calf, connected by bar-iron in such a way that the knee would be exposed when applied. A foot-piece was attached.

In this appliance the limb could be fixed in its new position. The patient was chloroformed and the operation commenced by estimating where the apex of the wedge should come, and marking it on either side with silver pins. An elliptical piece of skin was quickly dissected off from pin to pin about one-half the size of the base of the wedge of bone to be removed.

An ordinary amputating saw was inserted a little below the upper border of the patella, and directed towards the pins on either side; then started through the tibia for the same points. The wedge was easily removed. Just at this point in the operation the patient was overcome by the anæsthetic, requiring a cessation of work at my end of the table, and very active efforts at the other. By changing the chloroform for ether, and administering brandy hypodermically, and amyl by inhalation, the patient was revived sufficiently to proceed with the operation, which was done with the greatest rapidity.

When it was attempted to bring the bony surfaces together by straightening the limb, the hamstrings, which had seemed very lax, prevented the straightening process to more than a few degrees.

They were quickly divided subcutaneously, and using considerable force the surfaces were brought into apposition, fitting perfectly. Before doing this, a skein of silk was grasped in a pair of dressing-forceps and carried through the popliteal space from above, an incision being made to it through the skin from below. This did not prevent apposition of the bones, and would act as a guide to the pus that was expected. The skin-wound was closed smoothly by interrupted sutures, the limb, enveloped in absorbent cotton, was fixed in the apparatus, and the patient placed in bed.

The operation consumed thirty minutes; considerable shock followed. After twenty-four hours, a coil of rubber tubing was placed around the knee, extending several inches above and below the incision, through which ice water was kept constantly running. The dressing was untouched for ten days, the limb being closely watched to ascertain the formation of any great amount of pus.

When the dressing of absorbent cotton was removed, the skin wound was healed through its entire extent, except where prevented by the drainage silk, and at the external angle which had been left unclosed to permit drainage. The stitches were removed, and the silk drawn through the skin above, and left hanging from the lower opening for a few days longer. Very little pus was formed during the whole time.

At the end of three weeks a plaster dressing was substituted for the open dressing, with absorbent cotton next the limb to take up any discharge issuing from the lower opening, now nearly healed.

After this the patient moved about on crutches, and two weeks later, on removing the dressing, to our surprise bony union was found perfected, the wound being completely healed. The patient's general health had suffered very little, his temperature never rising above 100° F.

The only difficulty experienced was from the confined position during the first two weeks. After that time he was in a reclining chair.

A high shoe was made, and at the end of the seventh week he walked several times across my office, and a week later a photograph, the original of Fig. 2, was taken, on which occasion he walked very well, several times across the gallery, by simply steadying himself with the crutch used us a staff. He felt a little trouble from the tenderness of the bottom of the foot, that for so many years had not been used in walking. I believe that he will walk with

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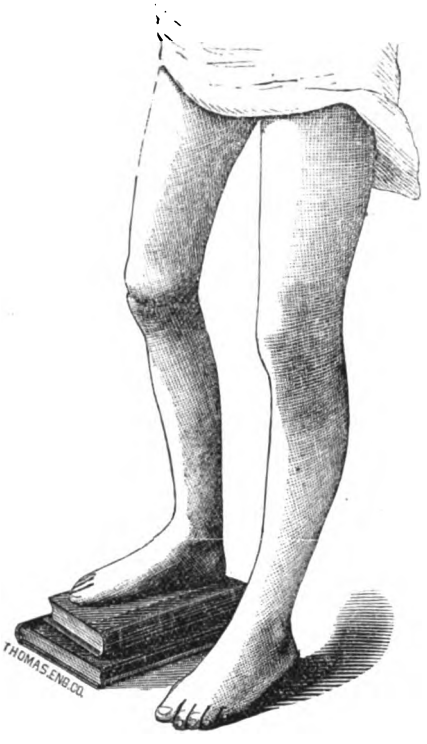
ease without aid from cane or crutch, the two and three-quarter inches shortening being compensated for by a high shoe.

Fig. 2.



In 1826, Dr. John Rhea Barton of Philadelphia, performed the first operation of this kind, the removal of a wedge of bone to compensate for an angle of deformity. In this case the wedge was removed from the upper end of the femur, the bone being anchylosed at an angle of 90°, and adducted. The patient, a sailor aged twenty-one years, made an excellent recovery, with a false joint, motion having been kept up for this end.

In 1835, Dr. Barton modified this operation in a case of angular anchylosis of knee. The patient was a medical man, and a good result was obtained. The wedge was removed from femur as near knee as possible, the apex posterior, and the limb straightened.

Fourteen cases of this operation were performed, with two deaths—one from hectic irritation, the other from exhaustion.

In 1844, Dr. Gurdon Buck, of New York, modified Barton's operation by taking the wedge through the site of the joint, including in the wedge part of the condyles of femur, tibia, and patella, as was done in the case I report. Dr. Gross has gathered twenty-one cases of this operation, with four deaths from pyæmia.

CASE II. *Neurectomy of Anterior Tibial for Cure of Chronic Neuritis; Achillotomy at same time to Relieve a resulting Club-foot.*—On March 8, 1883, Mr. S., æt. 34, of Mississippi, came to me for advice concerning a painful trouble about right ankle-joint, giving the following history: Family history good. He had never been sick, with the exception of one attack of remittent fever, until the occurrence of the accident which caused the present trouble. Seven years ago, while walking down a declivity, in a pair of boots with very high heels, his right foot turned. Great pain and swelling ensued, and a physician told him the small bone of the leg was broken, yet no dressing except an ordinary roller was applied. He was unable to use the foot for eleven months, suffering much pain during that time. After that he was able to get about with a cane, till two and a half years since he repeated the same accident in an aggravated manner, causing intense suffering, the pain being referred to anterior aspect of foot, about annular ligaments, and to the toes. This pain had been unremitting until he called on me, despite the use of all manner of local and general treatment.

For some time he had, by order of his physician, taken opium *ad libitum*, to relieve the constant pain.

His object in coming here was to have the foot amputated if necessary.

Upon examination, the patient was found in poor condition; had lost much flesh; without appetite, and very nervous. He had ceased the use of opium for six weeks, against the advice of his physician.

Local examination revealed a much atrophied limb, the foot being in complete equinus. The whole anterior surface of the foot was exquisitely tender; the tenderness being greatest about annular ligament, over course of tibial nerve extending along nerve trunk, halfway to knee; any effort at voluntary or passive flexion of foot greatly increasing pain. No swelling or evidence of former fracture was present.

A number of blue spots over foot and leg were present from recent blisters, used, the patient said, "to draw the pain away to a new place." I diagnosed, by exclusion, chronic neuritis of anterior tibial, and advised the removal of a section of the nerve, far enough above to ensure immediate relief of pain, and sufficiently extensive to prevent its very early renewal of function, if this should ensue. The division of the tendo Achillis, at the same time, was advised, followed by mechanical treatment to restore the foot to normal position. Dr. J. W. Holland, who saw the case with me, confirmed my diagnosis, and proposed treatment. On March 10th both operations were performed in the presence of Drs. Holland and Murrell, and Dr. Cheatham, who administered the ether.

The incision was made as for ligation of the artery in its lower third, the nerve easily exposed, and an inch of it removed, the wound closed and simply dressed with absorbent cotton and blood.

The tendon was then divided, and gradual force immediately applied to overcome deformity, the counter-force pressing directly over the part of the foot which had been so intensely tender.

At the end of three days the stitches were removed. The wound had healed through its whole extent. The foot was in normal position, and voluntary flexion could be carried to almost normal extent. The moving of the flexor tendons about the

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wound caused slight irritation, and a small amount of pus formed at lower angle, but after a few days the wound closed again. Twenty-five days have passed since operation.

The normal movement of foot has returned, and for ten days the patient has been walking about with a cane, complaining only that the limb is weak from long disuse. No apparatus is necessary, as the power of the flexor muscles is sufficient to counteract the extensors. The questions arise—

Will this nerve regain its function? If it does, will the pain return, or will the rest given by the suspension of its functions cure the local inflammation?

If the function never returns, what will be the result? Simply a loss of motion and sensation in some small muscles of the foot, having little connection with locomotion, and their final degeneration by fat.

Louisville, Ky.

IODINE AN ANTIDOTE FOR SNAKE-BITE.

By GEORGE H. CARPENTER. M.D.,
of Moorefield, Hardy Co., West Virginia.

Eight or ten years ago, I read an account of a case of snake-bite (in that case the rattlesnake) having been treated and speedily cured by iodine applied locally, and *administered internally*.

I am now unable to find the report, nor can I remember the journal in which it appeared, but the result of the treatment was such as to cause me to hold it in remembrance, to be used in case an opportunity presented. Up to this time I have not met with a case bitten by the genus *Crotalus;* but two cases bitten by the copperhead have fallen under my care, which I think clearly illustrate the potency of the remedy.

Case I.—A. W., male, aged thirty, of robust constitution; lives on the mountain, twelve miles distant from this place. In August, 1881, about two o'clock at night, he arose from bed, and in walking across the floor in his bare feet was struck on the instep of both feet by a copperhead snake, which was soon found and killed. Sharp pain was at once felt at the points of lesion, and the swelling of both feet was very rapid. I saw him at 7 A.M., five hours after the encounter. He had taken a quantity of whiskey, and had both feet and legs enveloped in poultices made of raw onions reduced to a pulp. His suffering was terrible. Countenance palid and anxious; breathing labored; pulse vacillating; had vomited repeatedly, and there were muscular twitchings throughout the entire body. I immediately gave him gtt. xv of the tinct. iodin. comp., in a third of a glass of water. I then had the poultices removed, and found both extremities mottled and swollen to the knees. After painting them with iodine, the poultices were restored. In about a half hour the intensity of the paroxysms of pain began to lessen, and at the same time there was a corresponding improvement in all the other constitutional symptoms; and in one hour from the time I administered a single dose of the remedy, I left my patient comfortable and cheerful. I directed the local application and a dose of ten drops of the tincture to be repeated every three hours for several days.

In about two weeks this man came to my office and informed me that the pain never returned; that in a few days the swelling began to subside, and he was soon on his feet. There remained some local tenderness and a sense of stiffness in the feet, but this gradually disappeared, and he has since experienced no ill-effects of the bite.

Case II.—B. E., living on the same mountain, was bitten on the dorsum of the hand by a copperhead snake in the latter part of June, 1882. I could not see this patient, but his condition, as described by the messenger, was similar to Case I. I sent him a vial of tinct. iodin. comp., and directed it to be used the same as above described. I have since met this man, and he reports a like happy result of the treatment, except that the local swelling and tenderness continued for several months; but at this writing the appearance and usefulness of the member are fully restored.

The copperhead snake, in considerable numbers, inhabits the mountains and marshes of this section; and I can cite a dozen or more persons in this immediate neighborhood who have fallen victims to his venomous bite, and who carry disabled members after enduring intense and prolonged suffering. Perhaps the majority of these cases were not treated by a physician; but it would be safe to say that all of them had the trial of whiskey and the onion poultice, that being the popular domestic plan.

Comparing these cases with the two I have reported, I think it may justly be claimed that the internal use of iodine exercised a potent influence on the latter. In my limited opportunities for examining the literature of the subject, I have not, except in a single case, seen the *internal* use of iodine recommended for the bite of venomous serpents and insects. The relief it afforded in the two cases in which it was prescribed by me was so marked and gratifying, that I must bespeak for it a reasonable trial in similar cases.

MEDICAL PROGRESS.

Character and Nature of the Processes Resulting from Inoculation of Peripneumonia.—M. G. Colin, in a memoir to the *Academie des Sciences*, gives the following as the outcome of his experiments on the subject:

1. The inoculation of virus from peripneumonia of cattle results in the development, in the cellular elements underlying the skin, or in those of the muscular interstices, of a process which is, from a pathological and histological point of view, the equivalent of that of the lung and pleuræ in contagious peripneumonia. This process is characterized by fibrino-albuminous exudations, yellow, charged with leucocytes, with nuclear epithelium, granules of various kinds, the exudations being similar to those produced in the interlobular connective cells of the lung.

2. The exudation furnished by the irritated connective tissue after inoculation produces, by its liquid and solid parts, a virulence equal to that of products of the same nature formed in the lung tissue of animals affected with peripneumonia.

3. Inoculation by the ordinary procedures does not

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seem to confer immunity, as it is followed by a reaction transferred by a more or less prolonged tumefaction, œdema, and exudations in a cellular region.—*Gaz. Hebdom.*, March 30, 1883.

CHROMIC ACID IN AFFECTIONS OF THE TONGUE.—MR. HENRY T. BUTLIN, F.R.C.S., has used chromic acid in certain affections of the tongue, with markedly good effect. In June, 1881, he treated two cases of glossitis with a ten grain solution of chromic acid in water, painted on the sore areas of the tongue three or four times a day. Both cases improved. A case of secondary syphilitic, deep and jagged ulcers of the tongue, and ulceration of the inside of the cheek, which showed no improvement under hyd. c. cret., iodide of potass., or liq. hyd. bichlor., were, after a week's treatment with chromic acid solution, almost completely healed. Another case of flat mucous tubercles, due to secondary syphilis on the right border of the tongue, which had resisted treatment with hyd. c. creta for about three and a half months, was almost completely cured in three weeks.

Mr. Butlin has used chromic acid in several different inflammatory conditions of the tongue, in many cases with most gratifying success. In 27 cases, 20 have been cured or greatly relieved, 7 having received little or no benefit. The seven cases were either of chronic superficial glossitis, or of *tertiary* syphilis. The twenty include seven of chronic superficial glossitis and thirteen of various *secondary* syphilitic affections. Mr. B. concludes that chromic acid cures with marvellous rapidity *secondary* affections, ulcers, mucous tubercles, and condylomata. It produces no appreciable effect on *tertiary* affections, gummata, extensive ulcers, or tubercular syphilides. Some cases of chronic superficial glossitis, with slight ulceration and renewed inflammation are rapidly benefited by it. In cases of glossitis in which the tongue surface is attacked by a fresh inflammation of great severity, glycerite of boracic acid and soothing remedies are more suitable; chromic acid rendering these worse. He reports one case of *tertiary* syphilitic ulcers of the tongue which was cured in about two months by combined chromic acid and mercury treatment, although it had obstinately resisted purely anti-syphilitic treatment for many months. The strength of the solution usually employed is grs. x–℥j water; in some cases grs. xv–℥j. The patient is told to paint the diseased parts three or four times a day with a camel's-hair brush dipped in the solution. There is seldom any pain or discomfort; sometimes a little smarting at first.—*Practitioner*, March, 1883.

DOUBLE HYDRONEPHROSIS WITH DILATATION OF THE BLADDER AND URETERS DUE TO DISEASE OF THE PROSTATE.—PROF. D. WEBSTER PRENTISS read a report of this interesting case before the Medical Society of the District of Columbia, January 24, 1883, of which we make the following abstract: Thomas H., æt. 58, printer. Health good previous to present disease, which began two years ago. The first symptoms were difficulty in urinating, retention of urine, irritability of the bladder, with phenomena of vesical tenesmus, which were soon followed by incontinence and constant dribbling of urine. No constitutional disturbance up to three months ago, when uræmic symptoms began to develop. The appetite, strength, and nutrition were unimpaired. He had been under treatment by various physicians, who prescribed tonics, diuretics, and lately full doses of ergot, for a supposed diabetes mellitus. Dr. Prentiss first saw the patient on December 17, 1882, at which time he was evidently suffering from uræmia; had been having violent headache in the morning for three months. For five weeks there had been progressive anorexia, weakness and emaciation, and nausea and vomiting for four weeks, which symptoms were very marked at the time of the first visit. The most distressing symptom at this time was dyspnœa, which had developed one week before, apparently due to pulmonary emphysema. No cough or other lung disease. No evidence of heart disease; *no dropsy*.

The amount of urine passed, making allowance for that lost by dribbling, was about two pints in twenty-four hours. It was offensive, alkaline, sp. gr. 1005; no albumen.

From the general symptoms Bright's disease was diagnosticated. Ordered hot baths and pilocarpine, tonics, stimulants, and milk. No relief. Microscopical examination of the urine, by Dr. Schæffer, showed no indications of bladder or kidney disease. Patient grew worse and died on December 27, 1882.

Autopsy, December 28th. Bladder appeared as a whitish, fibrous-looking, irregularly nodulated tumor, reaching nearly to the umbilicus, and distended with urine of the same character as that examined during life. The kidneys, bladder, and uterus were removed for further examination. After maceration in alcohol the bladder measured seven inches in length and four inches in transverse diameter; walls greatly thickened and rough, traversed by a coarse network of fleshy cords resembling the columnæ cornæ of the heart. In many places between these bands were pouch-like dilatations, which gave to the external surface of the bladder a nodulated appearance. There was no obstruction to the outlet of the uterus, and no apparent dilatation of them near the bladder. The most important pathological condition found was the *peculiar enlargement of the middle lobe of the prostate, which projects into the neck of the bladder in such a manner as to form a valvular obstruction to the escape of urine*.

Each ureter was twelve inches long, dilated irregularly from the size of a pencil to that of the thumb, the largest size being at their departure from the pelvis of the kidney. The kidneys (pelvis?) were both dilated to a capacity of about one-half pint, and contained that amount of urine. The kidney structure proper was reduced in thickness to about one-third or two-thirds of an inch. The early use of the catheter would undoubtedly have prevented the development of hydronephrosis.—*Maryland Med. Journal*, April 1, 1883.

SUBMUCOUS INJECTIONS OF CHLOROFORM. — For about six years, M. GUILLOT has been using injections of chloroform into the submucous tissue of the gums for acute odontalgia. Used in this manner, it acts more quickly than injections of morphine. In a series of 100 cases treated in this manner by Dr. Dop, 79 were appreciably benefited. He introduces the needle parallel to the line of the jaw to the depth of about one inch, taking care to keep it close to the bone. By this means there is little or no loss of the liquid when the needle is withdrawn. He has never had consecutive inflammations or ulcerations after this treatment. He has used chloroform not only by injection in cases of odontalgia with pulpar hyperæsthesia, but also as a lotion to allay the pains after extraction of teeth; gtt. v–vj, in a glass of warm water. This lotion will sometimes arrest the hemorrhage after extraction. — *Le Progrès Méd.*, March 24, 1883.

AN INSECT GENERATING PRUSSIC ACID.—In many of the houses in Holland, there is found a myriapod, genus *Fontaria*, which enjoys the singular property of exhaling a strong odor of prussic acid when excited. According to M. EGELING, the insect secretes a substance, which under certain conditions is decomposed into several products, notably into prussic acid. An American myriapod, the *Fontaria Virginica*, also exhales a slight odor of this acid.—*Revue Scien.*, March 31, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, APRIL 21, 1883.

KOCH AND HIS CONTINENTAL CRITICS.

IN our last issue we considered the criticisms against Koch's new doctrines as found in American literature. Of the German, Koch says, that he who supposes that it has produced no such fruit as that just adduced, will be mistaken.

Beneke seems to have made a mistake similar to that of Schmidt, having obtained bodies which he mistook for bacilli, from alcoholic and ethereal extracts of normal blood.

The assertion of Cramer, that he had found in the alvine dejecta of twenty healthy persons, bacteria which, on treatment by Ehrlich's method, responded to the color-reaction of tubercle-bacilli, Koch considers overthrown by the counter-results of Menche and Gaffky, who failed to find anything corresponding in reaction to tubercle-bacilli in the evacuations of healthy persons. Menche ascribes Cramer's results to deficient decolorization of the bacilli.

The somewhat similar results of Balogh, who claims to have found, in mud, bacilli similar to tubercle-bacilli, Koch claims to have himself refuted. He treated mud very rich in bacteria, according to Ehrlich's method, but discovered none reacting like the bacillus tuberculosis.

And here Koch makes the important announcement, that even should there be found in the intestinal canal, bacilli which possess the same reaction as tubercle-bacilli, and of the same size and form, this does not alter the state of the case. It is the pathogenetic property which is important, and if this is wanting, an identity of form and reaction goes for nothing. He further calls attention to the fact that he never asserted that bacteria do not exist which give the same color-reaction as the tubercle-bacillus. He quotes his own language from the original paper as follows: "All other bacteria as yet investigated by me, except the lepra-bacilli, take, with this method of staining a brown color." He has not, however, in his subsequent experience met other bacteria than these two, which respond in like manner.

With regard to inhalation experiments, those of Balogh, as well as the more extensive ones of Schottelius, according to Koch, go for naught. That the lungs react by the formation of nodular particles when foreign bodies like animal parasites, actinomyces, and even lifeless particles are inhaled, has long been known. But these nodular bodies, he says, are not true tubercles. And it goes for naught that their histology is identical with that of true tubercle. Such nodules are no more tubercular, according to Koch, than the pustule produced by tartar emetic on the skin is the same thing as the pustule of variola, although they are anatomically the same. Koch charges Schottelius with discarding all evidence of the parasitic nature of tubercle. The tubercle-bacilli are for him only accidental accompaniments of the disease, whereby Schottelius forgets that the evidence as to the etiology of tuberculosis is the same as that for anthrax. If he denies the significance of the tubercle-bacillus, he must also deny that of the bacillus of anthrax. Indeed, if he is consistent, he must also regard trichina and itch insects as accidental concomitants, and not as causes of the diseases they attend.

On the other hand, Koch will have no criterion of tuberculosis except the etiological one. Of course, if there be no anatomy for tubercle—and that is only considered tubercle which is the result of inoculation with tubercle-bacilli—there is no arguing the question, and the matter ends here. For if there is no anatomical criterion for tubercle, how are we to know what is tubercle, and what is not? The answer may be, by the presence of the tubercle-bacillus. But this, again, is begging the question. There is no doubt in our mind that the anatomical characters, which, with a considerable degree of constancy, have been shown to be associated with tubercle, are sufficient in the majority of instances, when present, to enable us to say of a given morbid product, it is tubercular, and the result of the condition known as tuberculosis.

Koch contends for the identity of tuberculosis in man and the "Perlsucht" of cattle, and holds that the facts adduced by Bollinger and Schottelius as to the harmless consumption by man of flesh from animals thus infected in no way disproves such identity. For, in the first place, it is not known

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whether the persons consuming this meat actually ate such as contained tubercle-bacilli, which are mostly found in parts likely to be thrown away, or worked up in such way by the butchers as to be sold or exchanged among persons lost sight of. Again, even if flesh containing bacilli is consumed as food, it does not follow that the consumer must in every instance become affected with tuberculosis, any more than consumption of the flesh of animals suffering with anthrax should be invariably followed by this disease, many cases of such exemption having fallen under Koch's notice. We think the impartial observer must here agree with Koch.

The conclusions of Schottelius, from differences in the structure of the smallest bronchi of herbivora and carnivora, as the result of which he concludes that the former are more susceptible to tuberculosis than the latter, Koch says, are overthrown by the fact that the cat, which is carnivorous, may be easily infected, while certain rodents, as mice and rats, are infected with difficulty.

As to Dettwiler, who adopts completely the conclusions of Schottelius, and who holds that the inoculation-results with tubercle-bacilli show nothing, because in animals only miliary tuberculosis is produced, and not the typical phenomena of phthisis, Koch refers him to the experiments upon the origin of miliary tuberculosis by Weigert, who has shown that other infectious diseases pursue in animals a course different from that observed in man, as especially illustrated by anthrax. A rabbit or Guinea-pig inoculated from the carbuncle of anthrax in man does not acquire a carbuncle, but general infection. We nevertheless use rabbits and Guinea-pigs for the etiological study of anthrax, and the results are allowed, even though the typical course of the disease in the animal, whence the inoculating material is derived, is not followed.

He concludes with his demolition argument, that Dettweiler knows nothing about bacteria-studies, and asks the question: Why, if bacteria are but the accidental attendants of disease, do we have this form of bacillus in every situation and variety of tuberculosis, another large bacillus in anthrax, micrococci in erysipelas, the spirochæta in relapsing fever? etc. Finally, he asks Dettweiler why he requires his phthisical patients to spit into a solution of corrosive sublimate, and concludes that he allows himself to be influenced too much in his bacteria investigations by his position as the conductor of a sanitarium.

But it is for Spina that Koch reserves his severest criticism. He says that the appearance of Spina's paper was so loudly and boastfully proclaimed, that he had reason to expect a carefully elaborated work which would in some way, at least, enrich science, especially as Spina was the first to undertake to test his investigations in their entirety; but he has seldom seen a more miserable production than this very work of Spina's. He then criticises Spina's methods: that he uses a water-immersion objective, instead of an oil-immersion with Abbe's illuminator; he uses his color solutions and other reagents erroneously; he investigates his aniline-stained preparations in glycerine instead of Canada balsam; he uses as a medium for demonstrating a special class of bacteria, a substance containing bacteria, namely, saliva. Spina's microscopic technique is the very opposite of what it should be for the investigation of bacteria. With these methods failure is inevitable, and Koch doubts very much whether Spina ever saw a tubercle-bacillus, and considers that all conclusions which Spina has reached in his microscopic investigations upon tuberculosis are worthless.

As to Spina's attempts at culture of the tubercle-bacillus and inoculations therefrom, experiments always attended with greater difficulty than the simple demonstration of the tubercle-bacilli themselves, they can only be considered as caricatures of Koch's own experiments. All the conditions and requirements of proper and successful cultures have been disregarded by Spina. Notwithstanding this, he attempted to inoculate with the products thus obtained. *Two* rabbits were inoculated with the dry bacteria crusts which Spina had cultivated upon his serum-gelatine, one of which died in eighty-six days with tuberculosis of the lungs—"inhalation-tuberculosis," says Koch—the other in forty-three days, with healthy lungs, white nodules in the diaphragm and spleen, but with no other of the phenomena which, in the rabbit, so strikingly characterize inoculation-tuberculosis. What a contrast, says Koch, to his own experiments, in which *several hundred* animals of different species were inoculated, not subcutaneously only, but also in the peritoneum, anterior chamber of the eye, etc. Each experiment was made upon three, four, and often ten animals, while control-experiments were made upon one or two animals. The animals were not allowed to live eighty-six days, but were killed at the end of four weeks at the outside, for the reason that rabbits especially, if inoculated with indifferent substances, become tuberculous if they are kept long enough in infected enclosures, and Koch places great stress upon the distinction between inoculation-tuberculosis and spontaneous tuberculosis.

Koch's summarized estimate of Spina's work is expressed in the following extract: "All things taken together, it is evident from the foregoing, that Spina understands neither how to study bacteria microscopically, how to cultivate, nor how to inoculate them. Upon the study and significance

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of tubercle-bacilli his work can have no influence. Its only consequence is that Spina has greatly injured his own scientific position and that of the institute in which he acquired his knowledge of bacteria, and under whose authority he has published his work. If he does not wish this blot to be permanent, the only thing which remains to him, is to begin his bacteria-studies anew, to acquire the necessary preliminary knowledge and experience in easier tasks, and finally, upon the ground of a thorough experimental work upon tuberculosis, openly and honorably acknowledge his errors."

In concluding his critical discussion, Koch again calls attention to the fact that the only research which attempted to test his work in all its aspects is that of Spina, which terminated thus most unfortunately. None of the remaining criticisms contained anything which in the least degree shakes his conclusions upon the etiology of tuberculosis. The task has not been a pleasant one to criticise so thoroughly a worthless literature, but he could not, from his interest in the matter, escape the duty, and hopes still to meet more carefully prepared material.

We have thus, at greater length than may at first thought seem justifiable, presented the reply of Koch to his critics. But the subject is a most important one, and we wish to place before our readers, as far as possible, the facts on which they may base their own conclusions, simply calling attention to points in which Koch has either the advantage of his critics, or himself claims more than is just and reasonable. We cannot but think the impartial reader must conclude that Koch is rather too dogmatic and self-asserting, and speaks with rather more than the amount of confidence which characterizes a properly balanced scientific mind, whose only object is to establish the truth, and not an opinion or theory of his own. On the other hand, it must be admitted that none of the critics have repeated his experiments with the care and exhaustiveness which he has used. And we sincerely hope that some one properly skilled in microscopic technique will repeat them with all the patient care and accuracy which the subject demands. It must be remembered that in order to prove tuberculosis to be an infectious disease, two points must be established: 1st. That tuberculosis cannot be produced by the inoculation of what are commonly spoken of as indifferent substances; and, 2d. That the cultivated bacilli, the inoculation of which is acknowledged by all to produce tuberculosis, are pure, and unmixed with any other matter.

MIGRAINE AND ORGANIC CEREBRAL DISEASES.

Persistent attacks of migraine, there is reason to believe, have a rather close relation to the development of cerebral mischief. Many of those who experience such attacks, have a neurotic disposition, and years after their onset suffer from more or less serious affections of the nervous centres. Such is the common experience. New light has been thrown on this interesting subject by M. Ch. Féré, in two papers, which have recently appeared in the *Revue de Médecine*. Féré holds that a pathogenetic relation exists between the ophthalmic form of migraine, especially, and certain cerebral disorders. There is, as is well known, an epileptiform variety of neuralgia affecting the ophthalmic division of the fifth nerve. Charcot has observed cases of dementia paralytica preceded by attacks of migraine. Parinaud has also published a paper on attacks of ophthalmic migraine, which usher in general paralysis. Féré reports a case recently observed with Charcot, in which attacks of sick-headache beginning at puberty, continued through many years, and were followed by aphasia, hemiplegia, convulsions, cerebral hemorrhage, and death. In this case there was no history of hereditary neuroses, nor did the patient present any other evidence than this affection, of a neuropathic tendency.

The peculiarity of the migraine consisted in the visual disorders, which sometimes preceded by twenty-four hours the pain in the head. These disturbances of vision consisted in a rapid, tremulous movement of external objects, colored rings, zigzag lines sometimes of light—sometimes of shadow, and occasionally there was simple obscuration of vision, for one-half or the whole of the field. Again it happened, that the images of objects remained long on the retina, or a black point appeared on the page and persisted for a half-hour at a time. The visual disorders usually disappeared as the headache came on, but sometimes persisted throughout the seizure. The termination of the attack was usually by vomiting, much bilious matter being brought up.

A symmetrical and bilateral organic lesion of the brain resulted after many years. Féré explained the occurrence of these lesions by a dynamical agency. "In migraine," he says, "there occurs a temporary contraction of the vessels, under the influence of some vaso-motor disorder. After a time, this contraction becomes permanent, and an almost complete closure of the vessels results, and this determines a thrombosis, from which ensues the death of the tissues comprised in the vascular territory attacked."

If ophthalmic migraine persisting through many years results so disastrously, as we have reason to believe is the case in some instances at least, does not this malady assume a higher position, both from the diagnostic and therapeutic points of view?

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TRIGEMINAL NEURALGIA.

THAT *bête noir* of the inexact orthographer and of the surgeon—*tic douloureux*—is the subject of an extremely interesting article by DR. F. H. GROSS in the April number of the AMERICAN JOURNAL OF THE MEDICAL SCIENCES, and is worthy of more than a mere passing notice, by reason of the thus far successful surgical measures adopted.

No one of the three branches of the fifth nerve was exempt from pain of the typical, atrocious character. After the futile employment of medical means, Dr. Gross found that compression of the carotid relieved the pain, and, acting on the hint, he ligated the common carotid artery. Following the proposal of Nüssbaum, this artery has been ligated for prosopalgia fifty-four times, and it is extremely interesting to note the difference in the mortality after ligation for this disorder when the patient is in good bodily health—saving the pain—and its ligation for other disorders when there is actual disease. Hueter gives the mortality after the 54 ligations of the carotid for prosopalgia as 3; *i.e.*, only 5 per cent. In 600 miscellaneous cases of carotid deligation collected by Pilz, in 1868, deducting 22 of unknown result, the mortality was 43 per cent.

The proposal of Dr. Roberts, in the discussion which followed, in the Philadelphia Academy of Surgery upon Dr. Gross' case, to tie the internal carotid, we do not regard as a happy one, since the operation is more difficult and less reliable than that of the common trunk, and the chief danger—insufficient nourishment of the brain—is not lessened. The relief to the pain in the first division of the nerve has thus far been permanent, after nearly three years. But after two years it returned in the second division. In the third division, the relief was almost *nil*. Eight months later, the inferior dental nerve was resected, and relief obtained for fifteen months. Last fall the superior maxillary was exsected, and a similar operation was done a second time on the inferior dental after two months. Thus far the relief is satisfactory.

We say "thus far," because it is not only possible, but we fear probable, that the disease will return. But granting that it does, has not the relief been a boon well worth the risk?

DIVULSION OF THE PYLORUS.

IN another column we present an account of an important new abdominal operation—divulsion of the pylorus—which deserves careful reading.

Of course the merits of the operation cannot be decided by four cases, but *primâ facie* it looks well. The operative procedure is simple, and not too prolonged; it involves not too great a risk in view of the gravity of the disease for which it is done; its statistics so far are reasonably good, especially in view of want of experience as to its dangers and their avoidance. The chief difficulty, we opine, is in the diagnosis. The disease—non-malignant stenosis of the pylorus—is certainly rare in this country and in Great Britain, but minute and careful physical and clinical examinations may, with fair certainty, discover the nature of the lesion.

Dr. Harris' suggestion as to previous rectal alimentation is certainly a wise one. It might readily turn the scale between life and death, and ought never to be forgotten; moreover we see no reason why the divulsion should be restricted to the fingers. While generally the best, it may be found that instrumental divulsion, in some cases, may be preferable.

The abdomen—until recently the *terra incognita* of surgery—has yielded many triumphs to modern genius and skill. What will be the next one?

DEATH OF JOHN BROWN.

THE last issue of the *Lancet* received in this country gives the particulars concerning the death of John Brown, the Queen's personal attendant. *Pallida mors æquo pede pulsat pauperum tabernas regumque turres.* He had an attack of erysipelas of the head, induced by exposure to cold, and notwithstanding the solicitude of his royal mistress, and the skilful management of Sir William Jenner, he succumbed after an illness of three days. We are not so much concerned, as are our English contemporaries, over the loss sustained by the Queen in the death of her faithful body-servant, but we have a professional interest in the manner of his taking-off.

The erysipelas appeared on the nose and cheek, and thence rapidly extended over the head. On the second day, the fever was very high, and delirium came on; on the third day he became comatose, and died. It requires but a superficial survey of such a case to indicate the points in which it differs from ordinary erysipelas of the face. Not more nearly does an ordinary boil resemble the malignant carbuncle which has its seat on the upper lip and nose. It was Dr. Bastian, of London, we believe, who first found minute embolisms of the brain in cases of erysipelas of this kind. The vascular communication between the facial vein, the pterygoid plexus, and the cavernous sinus is the medium by which emboli formed in the facial vein reach the intra-cranial vessels. It may be asked—As this vascular communication exists in all persons, why does not the same result follow in every case of facial erysipelas? That it does not, signifies that there is some difference in the nature of the

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two varieties. A poison is generated by the local morbid process in the one that is not produced in the other, or some unknown condition of the system precedes the local manifestation.

THE medical profession feels a just pride that the genius of one of its members has marked an era in the English literature of our century, and, therefore, on the occasion of Dr. Holmes' retirement from active medical teaching, the banquet which was given in his honor last week in New York as an expression of this sentiment by the profession, was a fitting tribute happily conceived, and gracefully executed.

The poem which Dr. Holmes wrote for the occasion, and which is printed in another column with the account of the banquet, shows that though while in the evening of life he seeks to lighten his burthen, it is not because his mind has lost any of its vigor; and that in his abandonment of medicine the poet will have greater opportunities to reap fresh laurels in literature.

"The true knight of learning, the world holds him dear,
Love bless him, joy crown him, God speed his career."

SOCIETY PROCEEDINGS.

THE KENTUCKY STATE MEDICAL SOCIETY.

Twenty-eighth Annual Session, held in Louisville, April 4, 5, and 6, 1883.

WEDNESDAY, APRIL 4th, the Society met in annual session at Louisville, at 12 M., with the *President*, DR. A. D. PRICE, of Harrodsburg, in the chair.

DR. COLEMAN ROGERS, of Louisville, as *Chairman of the Committee of Arrangements and Credentials*, welcomed the Society to the city in a cordial address.

The report of the *Treasurer*, DR. EDWARD ALCORN, of Hustonville, was presented by the Secretary, and, on motion, was approved.

The *Secretary*, DR. L. S. MCMURTRY, of Louisville, made his annual report. Letters were read from Prof. S. D. Gross, M.D., and Dr. J. J. Woodward, both honorary members of the Society. The report of the Secretary dealt in detail with the correspondence and publications of the Society during the past year, and, on motion, was received and approved.

The Committee on Credentials reported, through its chairman, that the following *Applications for Membership* had been received and considered, and the gentlemen were recommended for membership: Dr. E. S. Moss, of Williamsburg; Dr. Ancil Gatliff, of Williamsburg; Dr. Walter Byrne, of Russellville; Dr. R. Maupin Ferguson, of Louisville; Dr. William C. Webb, of Bryantsville; Dr. T. D. Finck, of Louisville; Dr. W. A Jemison, of Eminence; Dr. J. A. Stucky, of Lexington; Dr. George Horine.

On ballot, the above applicants were elected to membership.

DR. I. B. GREENLEY, of Jefferson County, made the report on the

PROGRESS OF MATERIA MEDICA AND THERAPEUTICS.

He referred to the extensive use being made of iodine and iodide of potash, as well as carbolic acid, in the treatment of typhoid and malarial fevers. His experience in the treatment of intermittents is favorable to the further trial of the sulphites and hyposulphites. Borax in epilepsy he recommends when the bromides fail. Atropine and ammonium bromide have likewise served, in his experience, as useful remedies in the treatment of spasmodic affections. The treatment of vomiting by the use of water as hot as it can be borne he refers to as an old treatment revived to subserve a useful purpose. The *Viburnum prunifolium* has maintained the reputation it acquired upon its advent into professional favor as applicable to threatened abortion. *Eucalyptus globulus* has failed to meet the expectation indulged by those who anticipated in its use a valuable substitute for the preparations of Peruvian bark. *Pinus Canadensis*, for chronic diarrhœa and inflammation of the urinary passages; Dugong oil, as a substitute for cod-liver oil; calcium chloride, in granular enlargements, have each been productive of good results in the author's hands.

DR. J. W. HOLLAND called attention to the unreliability of manufactured preparations of the standard medicines, and particularly the unreliability as to quantity in quinine pills said to contain one, two, and three grains each. The speaker claimed to have knowledge that justified the statement that such were almost invariably of short weight, no matter by what manufacturer made. In many instances pills marked two grains contained but a fraction over one, and others varied accordingly. The purity of the alkaloid in many could not be warranted, not even commended. He referred to an analysis, which is to appear shortly in the medical press of Louisville, on which these statements are founded, this analysis having comprehended pills made by various establishments, not one of which is to be designated in the report.

DR. W. M. FUQUA, of Hopkinsville, as chairman of the committee, delivered the

REPORT ON SURGERY.

Wound treatment first engaged the speaker's attention. Under this head reference was made to antisepsis as practised by applications, such as carbolic acid and iodoform. The speaker deprecated the almost universal use of iodoform for the reason that absorption of the drug has been followed by unpleasant mental symptoms showing the poisonous effect of the drug when absorbed. Drainage received fit consideration in this connection. The field of micro-organisms was hastily scanned, and the lessons of the first discoveries in the field applied to to those of later dates, and the influence upon future investigations foreshadowed. The germ theory, as applied to typhoid, malarial, and scarlet fever, found in the author a firm believer and forcible exponent. "Peritoneal surgery," the speaker said, "has grown with the growth of the antiseptic system. In the treatment of wounds involving the peritoneal cavity, Sims expresses the most recent utterance when he declares that unfavorable terminations are the result of septicæmia and not peritonitis, and that this septicæmia is due to effusions into the peritoneal cavity. Resection of the pyloric extremity of the stomach has been performed perhaps fifteen times. Three thus operated upon are still alive. The probabilities are that the operation will never be recognized as a justifiable procedure. Operative procedures for the relief of intestinal obstruction, colotomy; rupture and gunshot wounds of the bladder; hernia, and operations upon the chest and lungs were each in turn considered. In gynecology the greatest advances have been made by native talent. Operative measures for the relief of epilepsy, as recently shown by Dr. Alexander, are likely to be productive of benefit, and will shortly, in the estimation of the speaker, prove of recognized utility. Shock, that peculiar and often fatal

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condition incident to grave surgical operations and injuries, was not clearly understood until of late years. Light has been shed upon the subject by recent investigations which indicate that the condition is one of paralysis of the abdominal vessels and nerves, for the relief of which alcohol, ammonia, and especially ether and atropia are most efficient.

Discussion of this paper was confined to a consideration of the subject of antiseptics, and particularly the dangers attendant upon the use of iodoform.

DR. J. M. MATHEWS, of Louisville, said that he had freely used iodoform as an antiseptic for a number of years; and without once having reason to suspect that by its application he had done the patient harm. In treating diseases of the rectum he has used it freely, packing an ulceration with it as many as three or four times a week, and continuing this for three or four weeks, until a healthy action had been excited. He has yet to meet a single case wherein any deleterious or dangerous symptoms followed as a consequence of its use. As to its local effect, he thinks no surgeon can have a doubt as to its excellence.

DR. D. W. YANDELL, of Louisville, remarked that what had been said touching the dangers of iodoform does not apply to its application to the small surface to which it must be applied in cases of affections of the rectum, but to the absorption of the substance when used in enormous quantities. He wished to confirm in his own experience the value of iodoform in rectal troubles. He had found it of especial use in the treatment of hemorrhoids after operation for removal by any of the usual methods. In some cases there is a good deal of active inflammation left, in others a sluggish condition of the parts, a callous-edged ulcer, or much infiltration in the adjacent tissues. Under these circumstances, but more particularly in the acute ulceration that follows, he has almost invariably gotten good results from iodoform. He quite concurs in the remarks of Dr. Mathews touching its harmlessness.

DR. D. S. REYNOLDS, of Louisville, while quite agreeing with the gentlemen with reference to the importance of the use of antiseptics, recognizes a great difficulty in the want of a selection of the proper kinds of antiseptics for particular conditions. Thus, the chloride of sodium is an efficient antiseptic in acute purulent inflammations of the mucous membranes, while boracic acid is applied with better results to those of a chronic form. Thymol and eucalyptol are of like benefit in the treatment of those inflammations which become septic by becoming purulent, as in the cavity of the middle ear, the tear passages, and other similar conditions. The *Aspergillus albicans*, which invades the external ear, is destroyed perhaps more readily by eucalyptol and thymol than by other agents, though boracic acid is not to be neglected in fungoid growths of this character. The *Tinea tonsurans*, which invades the hair follicles, is quickly destroyed by boracic acid. When we are able to classify the germs we shall then be able to arrive at some definite conclusion as to the selection of the germicide applicable.

THURSDAY MORNING, APRIL 5TH.

DR. TURNER ANDERSON, of Louisville, Chairman of the

COMMITTEE ON NOMINATIONS.

made the following report from that Committee:

President.—DR. J. N. MCCORMACK, of Bowling Green.

Vice-Presidents.—DRS. J. M. RIFFE, of Covington, and J. M. HARWOOD, of Shelbyville.

Secretary.—DR. S. M. LETCHER, of Richmond.

Assistant Secretary.—DR. J. S. MOORE, of Lebanon.

Treasurer.—DR. H. BROWN, of Hustonville.

Librarian.—DR. A. M. VANCE, of Louisville.

Bowling Green was recommended as the *next place of meeting.*

On motion, the report of the committee was unanimously adopted.

DR. ANDERSON then read the following resolutions, which the Committee on Nominations recommended for adoption by the Society:

Resolved, That the Kentucky State Medical Society receives with regret the resignation of Dr. L. S. McMurtry as permanent secretary.

Resolved, That the thanks of the Society be accorded Dr. McMurtry for the able and faithful manner in which he has discharged his duties, and for his untiring devotion to the interests of the Society.

On motion, the above resolutions were unanimously adopted.

The following *Committee of Arrangements and Credentials* was appointed for the next session: T. J. Townsend, chairman, Bowling Green; W. E. Hatcher, Bowling Green; J. F. McElroy, Bowling Green; Walter Byrne, Logan County; J. P. Thomas, Christian County.

DR. PRESTON B. SCOTT, of Louisville, read a paper on the subject of *Disorders of the Menstrual Function.*

DR. J. N. MCCORMACK, of Bowling Green, read a paper on *Hygiene*, which was for the most part devoted to a consideration of the duties and powers of boards of health, comparing the State Board of Health of Kentucky with the boards of other States. He discussed the duties and powers of local and county boards in relation to State boards.

DR. J. A. LARRABEE, of Louisville, in discussing this paper, said the greatest obstacle to the successful control and prevention of disease is the lack of knowledge and interest on the part of the people on the subject. In addition he called attention to the fact that here in this city, where we might reasonably expect the exhibition of attention on the part of our health authorities, during last fall in one neighborhood there was an epidemic of typhoid fever, during which he saw forty-five cases. All cases were distinctly traceable to one well used for drinking-water, and the well has never received any attention in the way of cleansing, but remains open for use and for the spread of disease.

DR. THOS. F. RUMBOLD, of St. Louis, by invitation, read a paper on the *Treatment of Chronic Naso-pharyngeal Catarrh.*

DR. W. O. ROBERTS, of Louisville, reported several *Cases of Head Injuries* in which operative procedures had been rendered necessary.

TREPHINING IN EPILEPSY.

DR. D. W. YANDELL exhibited the skull of a woman who was operated upon by Dr. Gross, in 1854. In 1867 she began to have epileptic convulsions, which continued to occur till her death, in 1872. Over the opening made by the trephine in this skull, a fibrous membrane of considerable strength had grown. Just inside an excrescence the size of a pea was formed. From the irritation caused by this it is supposed epileptic manifestations arose. Another case of which he spoke was of a man shot, during the war, in the frontal region, and who, apparently fully recovered, was seized with epileptoid convulsions. In 1867 Dr. John O'Reily, since deceased, operated upon him, removing quite a small portion of bone. He made a good recovery, and is alive to this day.

A youth, kicked by a horse, near the centre of the frontal bone had a fracture, slightly depressed, but recovery took place without interference. In about two years he began to have epileptiform convulsions, and his temper underwent a change. Dr. Yandell applied the trephine, his epilepsy disappeared, his viciousness passed away, and he is now a useful citizen.

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Dr. McCormack, of Bowling Green, reported a case which was brought to his office a little more than a year ago to be examined, in order that he might testify as to his sanity. He was twenty-three years of age. Six years before he was struck on the head with a sharp-pointed hammer, at which time he fell unconscious, and remained so for some time, but gradually recovered without any symptoms of trouble. He married at nineteen. He continued to all appearances well, until about six months before he consulted him, when he began to complain of great pain in the region of the former wound. He underwent some degree of emaciation. There was distinct depression at this point, though the excessive tenderness there prevented entirely satisfactory examination. Dr. McCormack removed a fairly large section, and afterward another section, and then rasped the edges. He recovered without a bad symptom. The remarkable feature in his case now developed itself. Shortly after he recovered he said he had no recollection of anything that had occurred from the day he was struck on the head until the day he was operated upon. Every precaution was taken to prevent any imposition, but he appeared to show no disposition to deceive. When he first became conscious, after the removal of the bone, his impression was that a short time before he had been struck on the head. He had no recollection of his marriage. He had bought a small farm and partially paid for it, but he would not believe it until he had examined the records for himself. He appears now to be in perfect health.

Dr. Frank C. Wilson, of Louisville, reported *Two Cases of Tracheotomy*.

Dr. Pinckney Thompson reported two cases of recovery from the operation, in each of which no tube had been used. Other cases in which it had been used had resulted unsuccessfully. He regarded the tube as harmful rather than efficacious, looking upon it as a foreign body in a delicate situation, and in itself sufficient to produce harmful irritation.

Dr. R. W. Dunlap, of Danville, spoke of two cases operated upon by the late Dr. John D. Jackson, both of which recovered. He used the tube in both cases.

Dr. D. W. Yandell reported a case in which the tube had been worn for a period of seven years.

Friday Morning, April 6th.

Dr. Seargent, of Hopkinsville, reported a case of *Strychnia Poisoning*, in which recovery occurred after the ingestion of twenty grains.

Dr. W. C. Webb, of Bryantsville, read a paper on *Pertussis and its Treatment*. He said that he considered croton-chloral, when properly administered, as a specific. The dose for a child one year old is one grain every four hours; from six to twelve, two grains; but adults can seldom stand more than four grains. It should be given regularly at stated intervals, both night and day; at the end of a week, only in the daytime.

Dr. J. A. Octerlony made a report on the *Progress of Dermatology*.

Dr. W. H. Wathen, of Louisville, exhibited to the Society a *Case of Hollow Needles*, which he had devised with special reference to the introduction of silver-wire sutures. The needles have different curves, adapting them to operations upon the perineum, vaginal walls, cervix uteri, and to staphylorrhaphy.

The President announced the Standing Committees, and the following

Delegates to American Medical Association.—Dr. D. S. Reynolds, Louisville; Dr. L. S. McMurtry, Louisville; Dr. J. A. Octerlony, Louisville; Dr. W. O. Roberts, Louisville; Dr. Geo. Bealer, Clinton; Dr. H. Brown, Hustonville; Dr. J. M. Riffe, Covington; Dr. L. P. Yandell, Louisville; Dr. J. P. Thomas, Pembroke; Dr. L. B. Todd, Lexington; Dr. W. H. Wathen, Louisville; Dr. J. N. McCormack, Bowling Green; Dr. T. B. Greenley, Jefferson county; Dr. Crawford, Bardstown; Dr. P. B. Scott, Louisville.

The Society then adjourned to meet in Bowling Green, on the first Wednesday in May, 1884.

[We are indebted to the courtesy of Dr. L. S. McMurtry, Editor of the *Louisville Medical News*, for advance sheets of that journal, from which our report has been collated.]

MEDICAL SOCIETY OF THE STATE OF TENNESSEE.

Fiftieth Annual Session, held at Nashville, April 10 and 11, 1883.

(Specially reported for The Medical News.)

The Tennessee State Medical Society met in its fiftieth annual session Tuesday, April 10, at 10 o'clock, in the Senate chamber at the capitol. The President, Dr. W. F. Glenn, called the Society to order, and Rev. J. P. Sprowls opened the exercises with prayer.

Dr. Deering J. Roberts, chairman of the Committee on Arrangements, delivered the address of welcome.

Gov. W. B. Bates was present by invitation, and appropriately welcomed the Society to Nashville and to the capitol.

The members of the Society registered

as present were G. A. Baxter, Vaulx Gibbs, Chattanooga; J. S. Nowlin, J. M. Coyle, W. F. Glenn, J. Berrien Lindsley, C. C. Fite, Deering J. Roberts, Paul F. Eve, W. P. Jones, George P. Williamson, J. E. Harris, W. M. Vertrees, James B. Stephens, Duncan Eve, J. R. Harwell, Orville H. Menees, Ambrose Morrison, J. F. Grant, Nashville; R. F. Evans, Thomas Lipscomb, Shelbyville; W. W. Taylor, Brownsville; F. B. Sloan, Cowan; W. M. Freeman, Hall's Hill; J. W. Sharber, Spring Hill; J. B. Harland, Columbia; B. F. Keys, Eagleville; W. L. Davies, Brunswick; F. Bogart, Sweetwater; A. J. Weldon, Paris Landing; T. K. Powell, Dancyville; Richard Cheatham, J. G. Sinclair, John P. McFarland, Nashville; R. P. Bush, Gallatin.

The following new members were elected and registered: N. D. Richardson, W. E. McCampbell, Richard Douglas, D. C. Day, J. M. Coyle, Judge W. G. Brien, J. R. Ferrell, F. M. Ferriss, T. G. Shannon, C. L. Eves, W. P. Burdette, W. I. Edwards, Nashville; S. J. McGrew, Shelbyville; D. H. Shipman, Clifton, Wayne County; W. G. Bogart, Sweetwater; P. C. Walker, Dyersburg; C. S. Wright, H. Berlin, Chattanooga; H. M. Anderson, Sewanee; J. V. Martin, Hendersonville; W. G. Spencer, U.S.A.; F. Ferguson, Rich Creek; B. W. Nolin, Mount Pleasant; F. M. Capps, Coxburg; L. E. Webb, Clarksville; J. L. Watkins, Nashville.

The President's Address.

Dr. W. F. Glenn then delivered an address on the "Immortality of Man." The address was referred to the Publication Committee.

The Society then adjourned until 2 P. M.

Afternoon Session.

In the absence of the President and Vice-President, Dr. Lipscomb called the Society to order.

The following

New Members

were elected:

Drs. W. R. Townsend, South Pittsburg; E. W. Bailey, Nashville; A. H. Caldwell, Cynthiana; J. M. Zarecor, Murfreesboro'; R. J. Hoyle, Farmington, Tenn.

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THE SECRETARY'S REPORT.

DR. C. C. FITE read his report, in which he argued that Tennessee should have a law, strictly enforced, to regulate the practice of medicine. She should have a well-drawn and accurately executed vital registration law. State and local boards of health should be better maintained, and when laws to protect the people come up before the General Assembly we should unitedly support them. The law, suggested to our law-makers recently, to better provide for the inspection of oils, should have passed.

DR. THOMAS LIPSCOMB read a paper containing many interesting reminiscences of the early history of the Society.

DR. J. S. NOWLIN then read an interesting paper on

VACCINATION AND SMALLPOX,

which was followed by a prolonged and interesting discussion by Drs. Grant, Fite, Roberts, Baxter, Noblett, T. L. Maddin, and Zarecor.

Dr. J. S. Nowlin offered the following resolution, which was adopted:

Whereas, The history of vaccination proves that vaccination is fully protective against smallpox, therefore

Resolved, That this Society does recommend and ask the State Board of Health to immediately institute such measures as will, at the earliest possible moment, secure a law requiring the vaccination of every infant born in this jurisdiction.

DR. ROBERTS gave notice that he would offer two amendments to the Constitution, one in regard to the censors and the other in relation to annual dues.

The Society then adjourned.

WEDNESDAY, APRIL 12.

The Society met at 10 o'clock, and was called to order by the President.

The following

NEW MEMBERS.

were elected: Drs. Norris, Centreville; W. L. Austin, J. S. Cain, J. L. Frey, Nashville; R. A. Harrington, Bold Spring.

The following members registered in addition to those previously reported: Drs. H. M. Bonner, Fayetteville; A. B. Tadlock, Knoxville: A. J. Swaney, Castalian Springs; C. C. Atchison, T. Menees, W. G. Ewing, T. A. Atchison, W. D. Haggard, W. T. Briggs, J. T. Arrington, Nashville.

DR. BAXTER extended to the Society an invitation to hold their next meeting in Chattanooga.

DR. TADLOCK spoke in behalf of Knoxville, and asked the Society to hold their next meeting in that city.

DR. POWELL favored meeting at Nashville every year.

Chattanooga was selected as the place of meeting for next year.

Memoirs of Drs. Walter Hightower; Sims, of Wartrace; C. K. Winston, of Nashville, and Randolph Knaffle, of Knoxville, were read, and after appropriate remarks by Drs. Jones, Lipscomb, Lindsley, and Menees, ordered to be published.

ELECTION OF OFFICERS.

The election of officers being next in order, Dr. A. B. Tadlock, of Knoxville, and Dr. T. A. Atchison, of Nashville, were nominated for *President*.

The result of the ballot was, Dr. Tadlock, 40, and Dr. Atchison, 35, and on motion of Dr. Atchison, the election was made unanimous.

The following were nominated for *Vice-Presidents:*

West Tennessee—W. W. Taylor, of Brownsville, who was elected without opposition.

Middle Tennessee—Dr. A. Morrison, of Nashville, Dr. S. Swaney, of Gallatin, Dr. F. B. Sloan, of Cowan. The ballot stood, Morrison, 41; Swaney, 19; Sloan, 10; and Dr. Morrison was declared elected.

East Tennessee—C. S. Wright, of Chattanooga, who was elected without opposition, other nominees being withdrawn.

Dr. C. C. Fite, present incumbent, was re-elected *Secretary* without opposition.

Dr. Deering J. Roberts was elected *Treasurer* without opposition.

Dr. Roberts moved

AN AMENDMENT TO THE CONSTITUTION,

establishing a judicial council instead of the Board of Censors, the judicial council to be composed of those who had been President of the State Medical Society, three of whom should constitute a quorum. As objection was made, the amendment lies over until next year.

The Society adjourned until 2 P.M.

AFTERNOON SESSION.

DR. A. B. TADLOCK read an admirable paper on *Femoral Hernia*.

DR. J. W. DAVIS, of Smyrna, sent an interesting account of a case of induced delivery that occurred in his practice. The paper was referred.

The committee to examine the Treasurer's accounts reported them correct.

By request, DR. GRANT opened a discussion on *Puerperal Fever*, which was participated in by Drs. McFarland, Vertrees, J. S. Nowlin, Williamson, J. W. Madden, and A. J. Sinclair.

DR. J. G. SINCLAIR introduced a patient showing the result of a burn to the eye, and detailed his treatment of the case.

DR. J. W. MCMURRAY was elected an active member.

DR. ROBERTS suggested some changes in the constitution and by-laws in regard to dues. The question was referred to a special committee, with instructions to report at the next meeting a new constitution and by-laws.

DR. W. D. HAGGARD presented a paper on *Ovarian Disease*.

The Society then adjourned, to meet in Chattanooga, the second Tuesday in April, 1884.

After adjournment, a handsome banquet was tendered by the resident physicians to the members of the State Society.

CORRESPONDENCE.

CALIFORNIA HEALTH RESORTS.

To the Editor of THE MEDICAL NEWS.

SIR: In an editorial in THE NEWS of March 17th, is a reference to the California climate, and to the health resorts of the southern part of that State.

Inasmuch as I have spent several months there for my own health, I think it possible that the result of my observations and experience may be of service to others. I reached San Francisco in December, 1878, after having spent some weeks at sea and a short time in Japan. I had left home on account of a chronic pulmonary trouble, and had gained considerably in flesh before I returned to America, but it was deemed best by my physician here, Dr. James L. Cabell, for me to spend the winter in California, and by the advice of Dr. Hammond, of San Francisco, an old army surgeon who had been stationed in all parts of the State, I went to San Diego. While there, I gained rapidly in flesh and strength, and my health has continued good ever since.

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That San Diego is the best of the health resorts on the Pacific coast, for those who require a dry and equable climate, I have no doubt. I give below a table showing the number of clear, fair, cloudy, and rainy days in each month during a period of four years, and also tables showing the range of the thermometer and barometer during a period of five years. These tables were compiled from the reports of the signal officers at San Diego, and speak for themselves.

Table showing number of clear, fair, cloudy, and rainy days in each month of the years 1873, '74, '75, '76.

	January.				February.				March.				April.				May.				June.			
	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.
1873 .	16	9	3	3	7	8	2	11	8	15	6	2	11	11	7	1	3	6	4	1	6	19	5	0
1874 .	7	8	9	7	11	5	1	11	6	11	4	10	13	13	1	3	8	15	3	5	13	16	1	0
1875 .	8	12	3	8	8	13	4	3	14	14	0	3	10	15	3	2	9	16	3	3	10	18	1	1
1876 .	15	5	1	10	15	6	3	5	17	6	3	5	12	13	3	2	11	14	5	1	0	18	11	1

	July.				August.				September.				October.				November.				December.			
	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.	Clear.	Fair.	Cloudy.	Rainy.
1873 .	9	22	0	0	11	6	2	2	14	14	2	0	15	14	1	1	7	15	3	5	12	9	3	7
1874 .	5	20	3	3	10	20	1	0	14	12	1	3	9	15	0	7	12	10	3	5	15	15	0	1
1875 .	4	18	9	0	8	21	1	1	5	17	6	2	13	16	2	0	13	7	3	7	16	7	5	3
1876 .	8	17	6	0	9	21	0	1	13	13	3	1	12	10	8	1	18	8	2	2	18	9	2	2

Report of Signal Officer at San Diego, California, for the years mentioned in the table.

Every period of twenty-four hours in which rain falls, if even for half an hour, is called a rainy day; but a large proportion of the so-called rainy days are nearly clear between sunrise and sunset, the rain falling only at night.

	Range of Thermometer.		Range of Barometer.	
	Maximum.	Minimum.	Maximum.	Minimum.
1874.	October. 90°	December. 39°	30.32	29.74
1875.	Sept. & Oct. 88°	December. 38°	30.36	29.55
1876.	August. 74·4°	January. 44·8°	30.35	29.67
1877.	August. 94°	January. 40°	30.31	29.72
1878.	September. 100°	December. 35·4°	30.39	29.55

There are some points which are not mentioned in the above tables which are of very great importance. One of these, and, according to my own experience and that of other health seekers whom I met, by far the most important, is the diurnal variation of temperature. Nothing is more uncomfortable, certainly, to an invalid than a very sudden fall in the thermometer. At San Diego, during the three months I was there, the daily variation was never sufficient to cause discomfort. At Santa Barbara I saw the thermometer fall, on one occasion, nearly 30° (from 90° to 62°) in three hours, and while, of course, a fall of this magnitude is not nearly so much felt when the temperature is high as when it is lower, it is sufficient to cause decided chilliness and to necessitate a change of clothing.

Then another serious drawback to most of the health resorts in southern California which I visited, was the dust. Nor was San Diego by any means free from this objection, but it was less subject to winds and dust than any other place I visited, except the San Gabriel Valley. Fogs occasionally occur there (at San Diego), but as the town is on a bay, and seven miles from the sea, they are not so common as at most of the other resorts, and in the country, a few miles back, they never occur.

To send patients to San Diego, or any other health resort, who were far advanced in consumption, in the hope that they would be benefited by the change, would be the merest folly; yet it was not uncommon, during the winter of 1878 and '79, when I was there, for persons to come in the last stages of this disease, whose friends

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expected a speedy recovery. It is needless to say that such cases were not improved, and had far better have staid at home. It was, however, the unanimous opinion of those who had tried all the resorts on the coast, that San Diego possessed decidedly the best climate. At that time, though, there was no railroad connection with other points, and for those who were fond of amusement and society the town was extremely dull; and it was on this account, and on this alone—so far as I could judge—that it was not more popular.

I was therefore led to the conclusion, that of all the California health resorts, San Diego and its vicinity was unquestionably the best. I mention the surrounding country, especially, because quite a number of persons found that they felt more comfortable, and improved more rapidly a short distance back from the bay. One of my patients, who has spent the past winter there, found it advisable to go back into the country.

What the relative merits of southern California and Colorado are, I am not prepared to say. The atmosphere at Manitou Springs was so light, that in my own case the respiration was seriously embarrassed, and I was only too glad to get away after spending only a day or two there. To those whose respiratory surface was not lessened, the air seemed most exhilirating and beneficial.

There are certain troubles incident to the trip across the continent which to a well person would seem trivial, but which are very annoying to an invalid. One of these is the alkali dust which gets into the throat and lungs, and causes great annoyance, and frequently sets up a troublesome cough, or aggravates one already present. Another trouble is that the air becomes so much rarefied that the breathing is uncomfortable if the respiratory surface has been much diminished. I found it necessary to lie down a part of the time, and was told that this was frequently necessary.

These seem to be very trivial matters; yet they are important to an invalid, and should be remembered in selecting a sanitarium.

Yours, etc.,
WM. C. DABNEY, M.D.

CHARLOTTESVILLE, VA., April 3, 1883.

BROMIDE OF POTASSIUM TO COUNTERACT THE UNPLEASANT EFFECTS OF QUININE.

To the Editor of THE MEDICAL NEWS.

SIR: It occurred to me it might be interesting to call your attention to the effect bromide of potassium exerted over the cerebral congestion following a dose of bisulphate of quinine. The patient, a lady of rather delicate constitution, had a miscarriage, and I saw the case in connection with Dr. Beal, of Washington. During the second week considerable fever was manifest, the temperature never falling below 100° F., and rising to 105° F. Drugs could not be retained by the stomach, and a rectal injection of ten grains of bisulphate of quinine was ordered to be taken every three hours. Following the third injection, a severe headache with buzzing in the ears, accompanied by slight hallucinations. I being with the patient at the time, gave her an enema of thirty grains of bromide of potassium, and before fifteen minutes had elapsed all the distressing symptoms disappeared, and the patient passed into a quiet sleep. No other drugs had been used. Milk and beef tea the diet. I do not remember seeing these effects of the bromide recorded. If there is anything new in this observation it might be worth professional attention.

Very respectfully yours,
J. ALBAN KITE, M.D.

U.S.S. FISH HAWK, April 13, 1883.

ŒDEMA UVULÆ THREATENING LIFE.

To the Editor of THE MEDICAL NEWS.

SIR: Your issue of March 31st contains an article on this subject by Dr. Chas. H. Carter, of Chicago, Ill., with a request for further reports of such cases. The following facts may be of interest in this connection:

Otto T., æt. thirty, single, was admitted to the German Hospital, on March 5th, suffering from acute articular rheumatism, the case belonging to Dr. G. W. Vogler, one of the visiting physicians to the hospital. The patient made a rapid recovery, and then had an attack of acute tonsillitis of a mild type, the treatment of which consisted of simple astringents. He did well until midnight of March 30th, when I was hastily summoned to see him in the male medical ward, and found him completely exhausted from impending suffocation.

The cause of his struggles was at once apparent. The pharynx and tonsils were much congested; the uvula enormously enlarged, filled with fluid, and reached down to the epiglottis. There being no time to lose, I simply seized the uvula with a tenaculum and amputated a portion of it with a pair of scissors, which was followed by immediate relief and shrinking of the organ.

Treatment with the astringent gargle was continued, and patient discharged, a few days later, cured.

Most respectfully yours,
JOHN S. MILLER,
Resident Physician.

GERMAN HOSPITAL, April 11, 1883.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

THE HOLMES BANQUET.—The dinner given by the medical profession of New York City in honor of Dr. Oliver Wendell Holmes, on the evening of April 12, 1883, was an occasion which will be long remembered by those who had the good fortune to be present.

The great dining hall at Delmonico's was filled to its utmost capacity, about two hundred and twenty persons being present, and within a very short time after the Committee having charge of the matter had announced their readiness to receive subscriptions, it was embarrassed by the number of applications for tickets.

The five long tables running at right angles to the guest table, placed on a slightly raised dais, reminded one of the dinner given by the Lord Mayor of London to the International Medical Congress. At the raised table sat Dr. Holmes, at the right of the Chairman, Dr. Fordyce Barker. On the right of Dr. Holmes were Hon. W. M. Evarts, Dr. J. T. Metcalfe, Mr. Geo. Wm. Curtis, Dr. S. O. Vanderpoel, Dr. J. S. Billings, Dr. L. A. Sayre, Dr. T. A. Emmet, and Dr. A. C. Post; while on the left of the Chairman were Bishop Clark, of Rhode Island, Mr. Whitelaw Reid, Dr. J. C. Dalton, Dr. S. Weir Mitchell, Dr. T. G. Thomas, Dr. Wm. Detmold, Dr. T. M. Markoe, Dr. James Anderson, and Dr. I. E. Taylor.

At the other tables were seated the leading members of the medical profession of New York, the presiding officers being Drs. C. I. Pardee, J. H. Anderson, Leroy M. Yale, E. G. Loring, and R. F. Weir.

The decorations were simple and in good taste, consisting of cut flowers and pots of flowering and bright-leaved plants. The menu was an elaborate affair in the form of a small book, bound in thick plush, the cover having a device in gilt representing a scalpel

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and a pen crossed within a wreath. At the head of the menu were the lines: "You know your own degree; sit down; at first and last a hearty welcome." This quotation was the more appropriate, since each guest and ticketholder had received a plan of the tables, showing the location of all the diners, his own being specially marked by a red check. The dinner was, of course, all that could be desired so far as dishes, wines, and service are concerned. The sherbet was served, *à la Yorick*, in small skulls made of white wax.

The programme of toasts was as follows:

"The hours now come;
The very minute bids thee ope thine ear;
Obey and be attentive." —"*The Tempest.*"

Greeting by Dr. Fordyce Barker.

"Sir, you are very welcome to our house;
This must appear in other ways than words;
Therefore I scant the breathing courtesy."
—"*Merchant of Venice.*"

I. OUR GUEST.

"One would say, here is a man with such an abundance of thought. He is never dull, never insincere, and has the genius to make the reader care for all that he cares for." —*Emerson.*

Response by Dr. Oliver Wendell Holmes.

II. THE CLERGY.

"He was a scholar, and a ripe and good one, exceeding wise, fair spoken and persuading." —*King Henry VIII.*

Response by Bishop T. M. Clark, of Rhode Island.

III. THE BAR.

"Why might that not be the skull
Of a lawyer? Where be his quiddets now?"
—"*Hamlet.*"

Response by the Hon. Wm. M. Evarts.

IV. THE MEDICAL PROFESSION.

She honors herself in honoring a favorite son.

Response by Dr. T. Gaillard Thomas.

V. LITERATURE.

"A kind of medicine in itself."
—"*Measure for Measure.*"

Response by George William Curtis.

VI. THE PRESS.

"But words are things, and a small drop of ink,
Falling like dew upon a thought, produces
That which makes thousands, perhaps millions, think."
—*Byron.*

Response by Whitelaw Reid.

"Good night, good night! Parting is such sweet sorrow,
That I shall say good night till it be morrow."
—"*Romeo and Juliet.*"

About 10 P.M., the Chairman, DR. FORDYCE BARKER, rapped for silence, and, in a brief and humorous speech, introduced the guest of the evening, and called on Dr. A. H. Smith to complete the greeting.

DR. SMITH responded in verse as follows:

You've heard of the deacon's one-hoss shay
Which, finished in Boston the self-same day
That the City of Lisbon went to pot,
Did a century's service, and then was not.
But the record 's at fault which says that it bust
Into simply a heap of amorphous dust;
For after the wreck of that wonderful tub,
Out of the ruins they saved a hub;
And the hub has since stood for Boston town,
Hub of the Universe—note that down.
But an ordinary hub, as all will own,
Must have something central to turn upon,
And, rubber-cushioned, and true, and bright,
We have the axle here to-night.

Thrice welcome, then, to our festal board
The doctor-poet, so doubly stored
With science as well as with native wit;
Poeta nascitur, you know, *non fit.*
Skilled to dissect with knife or pen,
His subjects dead or living men;
With thoughts sublime on every page
To swell the veins with virtuous rage,
Or with a syringe to inject them
With sublimate to disinfect them;
To show with demonstrator's art,
The complex chambers of the heart,
Or armed with a diviner skill
To make it pulsate at his will;
With generous verse to celebrate
The loaves and fishes of some giver,
And then proceed to demonstrate
The lobes and fissures of the liver;
To soothe the pulses of the brain
With poetry's enchanting strain,
Or to describe to class uproarious
Pes hippocampi accessorious;
To nerve with fervor of appeal
The sluggish muscles into steel,
Or, pulling their attachments, show
Whence they arise and where they go;
To fire the eye by wit consummate,
Or draw the aqueous humor from it;
In times of peril give the tone
To public feeling called backbone,
Or to discuss that question solemn
The muscles of the spinal column.
And now I close my artless ditty
As per agreement with committee,
And making place for those more able,
I leave the subject on the table.

Yet one word more. I've had my pride
As *medicus* most sorely tried,
When Englishmen who sometimes show
Of things American, you know,
An ignorance that is melancholy;
As Dr. Holmes is very jolly,
Assume that he must therefore be
A Doctor of Divinity.
So to avoid all chance of wrong
To medicine, or church, or song!
Let Dr. Holmes discarded be
For Oliver Wendell Holmes, M.D.

And now, for I really must come to an end,
May the fate of the chaise be the fate of our friend.
May he never break down, and never wear out,
But a century old, or thereabout;
Not feeling the weight of the years as they fly,
Simply stop living when ready to die.

This was received with great laughter and applause. When DR. HOLMES arose to reply, the banqueters arose with him, and gave him three cheers and a tiger. His reply was as follows:

Have I deserved your kindness? Nay, my friends,
While the fair banquet its illusion lends
Let me believe it, though the blood may rush
And to my cheek recall the maiden blush
That o'er it flamed with momentary blaze
When first I heard the honeyed words of praise,
Let me believe it while the roses wear
Their bloom unwithering in the heated air;
Too soon, too soon their glowing leaves must fall,
The laughing echoes leave the silent hall,
Joy drop his garland, turn his empty cup,
And weary labor take his burden up,—
How weighs that burden they can tell alone
Whose dial marks no moment as their own.

Am I your creditor? Too well I know
How Friendship pays the debt it does not owe,
Shapes a poor semblance fondly to its mind,
Adds all the virtues that it fails to find,
Adorns with graces to its heart's content,
Borrows from love what nature never lent,
Till what with halo, jewels, gilding, paint,
The veriest sinner deems himself a saint.

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Thus while you pay these honors as my due
I owe my value's larger part to you,
And in the tribute of the hour I see
Not what I am, but what I ought to be.

Friends of the Muse, to you of right belong
The first staid footsteps of my square-toed song;
Full well I know the strong heroic line
Has lost its fashion since I made it mine;
But there are tricks old singers will not learn,
And this grave measure still must serve my turn.
So the old bird resumes the self-same note
His first young summer wakened in his throat;
The self-same tune the old canary sings,
And all unchanged the bobolink's carol rings;
When the tired songsters of the day are still
The thrush repeats his long-remembered trill;
Age alters not the crow's persistent caw,
The Yankee's "Haow," the stammering Briton's "Haw;"
And so the hand that takes the lyre for you
Plays the old tune on strings that once were new.
Nor let the rhymester of the hour deride
The straight-backed measure with its stately stride;
It gave the mighty voice of Dryden scope;
It sheathed the steel-bright epigrams of Pope;
In Goldsmith's verse it learned a sweeter strain;
Byron and Campbell wore its clanking chain;
I smile to listen while the critic's scorn
Flouts the proud purple kings have nobly worn;
Bid each new rhymer try his dainty skill
And mould his frozen phrases as he will;
We thank the artist for his neat device;
The shape is pleasing, though the stuff is ice.

Fashions will change,—the new costume allures,
Unfading still the better type endures;
While the slashed doublet of the cavalier
Gave the old knight the pomp of chanticleer,
Our last-hatched dandy with his glass and stick
Recalls the semblance of a new-born chick;
(To match the model he is aiming at
He ought to wear an egg-shell for a hat);
Which of these objects would a painter choose,
And which Velasquez or Van Dyke refuse?

When your kind summons reached my calm retreat,
Who are the friends, I questioned, I shall meet?
Some in young manhood, shivering with desire
To feel the genial warmth of fortune's fire,—
Each with his bellows ready in his hand;
To puff the flame just waiting to be fanned;
Some heads half-silvered, some with snow-white hair,—
A crown ungarnished glistening here and there,
The mimic moonlight gleaming on the scalps
As evening's Empress lights the shining Alps,
But count the crowds that throng your festal scenes,
How few that knew the century in its teens!

Save for the lingering handful fate befriends,
Life's busy day the Sabbath decade ends;
When that is over, how with what remains
Of nature's outfit, muscle, nerve, and brains?

Were this a pulpit I should doubtless preach,
Were this a platform I should gravely teach,
But to no solemn duties I pretend
In my vocation at the table's end,
So as my answer let me tell instead
What Landlord Porter,—rest his soul!—once said.

A feast it was that none might scorn to share;
Cambridge and Concord's demigods were there,—
"And who were they?" You know as well as I
The stars long glittering in our Eastern sky,—
The names that blazon our provincial scroll
Ring round the world with Briton's drumbeat roll!
Good was the dinner, better was the talk;
Some whispered, devious was the homeward walk;
The story came from some reporting spy,—
They lie, those fellows,—O, how they do lie!
Not ours those foot-tracks in the new-fallen snow,—
Poets and sages never zig-zagged so!

Now Landlord Porter, grave, concise, severe,
Master, nay Monarch in his proper sphere,
Though to belles-lettres he pretended not,
Lived close to Harvard, so knew what was what,
And having bards, philosophers and such,
To eat his dinner, put the finest touch
His art could teach, those learned mouths to fill
With the best proofs of gustatory skill,
And finding wisdom plenty at his board,
Wit, science, learning, all his guests had stored,
By way of contrast, ventured to produce
To please their palates, an inviting goose.

Better it were the company should starve
Than hands unskilled that goose attempt to carve;
None but the master-artist shall assail
The bird that turns the mightiest surgeon pale.

One voice arises from the banquet hall,—
The landlord answers to the pleading call;
Of stature tall, sublime of port he stands
His blade and trident gleaming in his hands;
Beneath his glance the strong-knit joints relax
As the weak knees before the headsman's axe.
And Landlord Porter lifts his glittering knife
As some stout warrior armed for bloody strife;
All eyes are on him; some in whispers ask
What man is he who dares this dangerous task?
When, lo! the triumph of consummate art,
With scarce a touch the creature drops apart!
As when the baby in his nurse's lap
Spills on the carpet a dissected map.

Then the calm sage, the monarch of the lyre,
Critics and men of science all admire,
And one whose wisdom I will not impeach,
Lively, not churlish, somewhat free of speech,
Speaks thus: "Say, master, what of worth is left
In birds like this, of breast and legs bereft?"
And Landlord Porter, with uplifted eyes,
Smiles on the simple querist, and replies:
"When from a goose you've taken legs and breast,
Wipe lips, thank God, and leave the poor the rest!"

Kind friends, sweet friends, I hold it hardly fair
With that same bird your minstrel to compare,
Yet in a certain likeness we agree,
No wrong to him, and no offence to me;
I take him for the moral he has lent,
My partner,—to a limited extent.

When the stern landlord whom we all obey
Has carved from life its seventh great slice away,
Is the poor fragment left in blank collapse
A pauper remnant of unvalued scraps?

I care not much what Solomon has said,
Before his time to nobler pleasures dead;
Poor man! he needed half a hundred lives
With such a babbling wilderness of wives!
But is there nothing that may well employ
Life's winter months,—no sunny hour of joy?

While o'er the fields the howling tempests rage,
The prisoned linnet warbles in its cage;
When chill November through the forest blows,
The greenhouse shelters the untroubled rose,
Round the high trellis creeping tendrils twine,
And the ripe clusters fill with blameless wine;
We make the vine forget the winter's cold,
But how shall age forget its growing old?

Though doing right is better than deceit,
Time is a trickster it is fair to cheat;
The honest watches ticking in your fobs,
Tell every minute how the rascal robs.
To clip his forelock and his scythe to hide,
To lay his hour-glass gently on its side,
To slip the cards he marked upon the shelf
And deal him others you have marked yourself,
If not a virtue, cannot be a sin,
For the old rogue is sure at last to win.

What does he leave when life is well-nigh spent
To lap its evening in a calm content?
Art, Letters, Science, these at least befriend
Our day's brief remnant to its peaceful end,—

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Peaceful for him who shows the setting sun
A record worthy of his Lord's "Well done!"

When he, the Master whom I will not name,
Known to our calling, not unknown to fame,
At life's extremest verge half conscious lay,
Helpless and sightless, dying day by day,
His brain, so long with varied wisdom fraught,
Filled with the broken enginery of thought,
A fitting vision often would illume
His darkened world, and cheer its deepening gloom,—
A sunbeam struggling through the long eclipse,—
And smiles of pleasure play around his lips.
He loved the Art that shapes the dome and spire
The Roman's page, the ring of Byron's lyre,
And oft when fitful memory would return
To find some fragment in her broken urn,
Would wake to life some long-forgotten hour,
And lead his thought to Pisa's terraced tower,
Or trace in light before his rayless eye
The dome-crowned Pantheon printed on the sky;
Then while the view his ravished soul absorbs
And lends a glitter to the sightless orbs,
The patient watcher feels the stillness stirred
By the faint murmur of some classic word,
Or the long roll of Harold's lofty rhyme,
"Simple, erect, severe, austere, sublime,"—
Such were the dreams that soothed his couch of pain,
The sweet nepenthe of the worn-out brain.

Brothers in art, who live for other's needs
In duty's bondage, mercy's gracious deeds,
Of all who toil beneath the circling sun
Whose evening rest than yours more fairly won?
Though many a cloud your struggling morn obscures,
What sunset brings a brighter sky than yours?

I, who your labors for a while have shared,
New tasks have sought, with new companions fared,
For Nature's servant far too often seen
A loiterer by the waves of Hippocrene;
Yet round the earlier friendship twines the new,
My footsteps wander, but my heart is true,
Nor e'er forgets the living or the dead,
Who trod with me the paths where science led.

How can I tell you, O my loving friends,
What light, what warmth your joyous welcome lends
To life's late hour? Alas! my song is sung,
Its fading accents falter on my tongue.
Sweet friends, if shrinking in the banquet's blaze,
Your blushing guest must face the breath of praise,
Speak not too well of one who scarce will know
Himself transfigured in its roseate glow;
Say kindly of him what is,—chiefly,—true,
Remembering always he belongs to you;
Deal with him as a truant, if you will,
But claim him, keep him, call him brother still!

BISHOP CLARK, upon being called upon to speak for the clergy, after alluding to the fact that originally the functions of the priest and of the doctor were the same—being the exorcising of the bad spirits who were supposed to be the authors of both gastric and moral diseases, proceeded to eulogize Dr. Holmes as a physician of the mind. "I wonder," said the Bishop, "if the Doctor knows how much sunlight he has brought into many a poor parson's sermon, and what a relief it sometimes is to turn from the Athanasius of the school to the Autocrat of the Breakfast Table; from the dry, dreary pages of Turretin to the Deacon's Masterpiece, and from Poole's Synopsis to poor Elsie Venner. [Applause.] We of the clergy are very proud of Dr. Holmes, because he is, as it were, one of us. If he had not had a father, the Autocrat would not have been; and that father was a clergyman; so that the Doctor is really one of our productions, and in a certain sense we feel that we may take the credit of all that he has ever said or written. [Laughter.] We are under great obligations to the father for giving us such a son. [Applause.] If the young man could have been induced to study for the ministry, what a preacher he would have made! It might have been necessary that he should curb his preachings a little if he had mounted the pulpit, and perhaps to modify some of his opinions in order to have become a sound divine. It may be better as it is; it is not every Pegasus that works well in harness.

"In taking up the other day my old, well-worn, green-covered copy of 'Holmes' Poems,' I was surprised by the date on the title-page—1836—within three years of half a century ago. Strangely enough, in the preface to this book he speaks of himself as an actor, who, on the occasion of his last appearance on the stage, 'folds his robes and makes his bow to the audience.' 'I now willingly retire,' he says, 'to more quiet labors, which, if less exciting, are more certain to be acknowledged as useful and received with gratitude.' Our veteran Professor had then reached the mature age of twenty-seven, but his sun was actually just rising. It has blazed away pretty steadily ever since. Long may it be before that sun goes down in glory." [Applause.]

In response to the toast of "the Bar," MR. EVARTS spoke as follows:

"DR. BARKER AND GENTLEMEN OF THE MEDICAL PROFESSION: It gave me the greatest delight to be thought by your profession to be worthy to represent my own in joining in the tribute to the genius and worth of Dr. Holmes, which all the professions equally delight in sharing. I confess to a considerable satisfaction in the admirable impression which these collected members of your noble profession have produced upon me, and, if you will allow me to say it, how much pleasanter it was to be asked to meet three hundred doctors than to ask one to meet you. An English traveller, in the early part of the century, a lawyer like myself, had found in an old German book on medicine from a very great and eminent physician, something, you may imagine, not of a humorous form, for he spoke in the greatest seriousness, but something of oddity. This writer, attracting attention to the valuable instructions of his work, and to the great power and services of his profession, laid down this sweeping proposition—that all the diseases, all the ills that flesh is heir to, all accidents requiring surgical aid, all had their origin, all were bestowed upon the human race in order that a skilful and learned profession might be educated by their means. I do not know but that after all at bottom there is a good deal of feeling on the part of the three learned professions that that is the true view of human affairs. Estate, body, and mind they make up, do they not? they are all that is visible, all that is interesting, all that is important in human affairs. And, abandoning in our profession the Latin earlier than you of the clergy in your prayers, or you of the medical profession in your prescriptions, we all have the same word to cover our relations respectively to human affairs. The lawyer has the care of estates and of interests, the clergyman the care of souls, and the physician the care of the body; and as the sheep are for the shepherd, so those taken care of are for those who take care of them.

"I have pointed out once before to an assembly of young physicians the striking advantage which at the start you gentlemen had, for though, alas, everybody has not an estate, and everybody has not a mind, yet everybody has a body. And, although we thus hunt the human race in different paths, as civilization opens them to us, we are all sure to be in at the death; and, although it is a cheerless moment, yet to us there are assuaging circumstances. I draw one interesting discrimination in favor of that profession so well represented to night by the Bishop, in contrasting our relations to mankind—that where members of his

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profession were sent out, as we all know, as sheep among wolves, we and you are sent out as wolves among sheep. [Laughter.] But we know enough not to pursue with any of our hostilities the clerical profession, although they tempt us by that guise of sheep [laughter], for we know that they are not sheep [laughter], and it is they who have a disguise, and not we who go in the midst of them. Now, this German doctor had this truth at last, that for the instruction of mankind, and for the development of the great intelligence, the great philanthropy and the great service that the different professions yield to mankind, these opportunities and these occasions were rendered in all the scheme of human life. May we not vary, then, the language which the great player used for human affairs from an analogy to his profession, and may we not wisely say

> "All the world's a school,
> And all the men and women in it scholars!

"Dr. Holmes has the advantages of being born and living near to Boston—a place of which no one learns early in life without feeling it a great advantage to have done so, and no one perhaps first learned of late in life without feeling that he is glad he has seen it before he dies. Having the advantage myself of having been born and bred there, I can only compare notes with Dr. Holmes upon the question, which of us he thinks, on the whole, was the wiser—I in leaving it as soon as I had got all the good out of it that was to be had, and looking for the wider sphere of New York for this exercise of my profession of a wolf among sheep. As for the fame that New York can ever bestow upon a resident and lover of Boston, as Dr. Holmes is, there is nothing in that. The only curiosity the Doctor had in this matter of fame, was to see how a Boston fame would sound echoed in New York, and I think I may say that it sounds very well to him for there is not a note or tone in the great capacity of this vast city less sweet. I have never known how the Boston people were able to put up so long with Dr. Holmes, who, while he furnished a great deal of reputation to Boston, took also a principal share of the reputation of Boston. Sir Henry Maine says, that a traveller repeating a visit to New Zealand, and inquiring for an old and a wise man, whom he had noticed on his previous visit, was told by the New Zealand chief: 'Well, he gave us so much good advice that we were obliged to put him away.' But our physician curbs even the natural ferocity of the Boston people, and while, by the methods of conveyance now in use, Dr. Holmes can slip away into so ample a heart as New York opens to him, he need not feel afraid that it will be necessary for the Boston people to put him away.

"And now, gentlemen, is it not fit, as we are all professional men, as the rest of the world are shut out, and as what is said here to-night will never go any further, [laughter]—is it not fit for us—does not our character for truth require us to admit that we are really the saviours and protectors of society? Why should we hide it even from ourselves? Let us nerve ourselves from these reflections to move in a more animated, more vigorous, more comprehensive pursuit of our several interests. Let us understand that the laborer is worth of his hire [laughter], and that those who are not willing to be aided by professional skill in parting with their property—and with their lives—are unworthy of serious consideration."

DR. T. GAILLARD THOMAS, responding to the toast of "The Medical Profession," said, that where the fame of the physician ordinarily ended, that of Dr. Holmes just began; and that he, more than any man of his profession, had bridged over that chasm which from time immemorial, has existed between physicians and the world, and has brought the profession of medicine into pleasant, agreeable contact with the world. He told a story related to him by an officer of the army, who once had with him as guide upon a scouting expedition, an especially grim and silent old hunter, upon whom all efforts of the officer to establish friendly relations seemed to be wasted. But one night the colonel was startled by a series of chuckles and strange and discordant noises, proceeding from the throat of the guide, and on investigation found that he had gotten hold of the officer's copy of Holmes' poems, and was slowly spelling out the legend of "The Spectre Pig," and henceforth he had the key to the old trapper's heart.

It was evident that with all his many years experience of praise in all its forms, this tribute was something new to Dr. Holmes; he leaned forward in his chair and listened intently, shaking with laughter at the close.

In concluding his response, Dr. Thomas said:

"And now, this man who for so many years has been known to us in spirit makes himself manifest to us in the flesh; he whom we have so long seen through a glass darkly we now see face to face, and to us is given the glorious privilege of telling him how thoroughly we appreciate his life-work; how sincerely his name is reverenced among us, and how truly he is beloved. As I look around it seems to me that I see before me a better representation of the dignity and the talent of medicine in New York than it has ever been my good fortune to have seen before. I feel sure that I give honest voice to the sentiment of every man within the range of my voice when I turn to our guest and say Welcome, thrice welcome, most cordially welcome, Doctor Holmes, to the city of New York. As in the monarchial towns of Europe on such an occasion as this you would be offered the freedom of the city, so do we, in the same spirit, in this our republican capital, throw wide open to you the portals of our homes and of our hearts. By that warmth of nature which has brought you into sunny contact with the whole world, by that genial, gentle sympathy, which has endeared you to all who knew you; by that subtle genius which has so felicitously combined in you the attributes of philosopher, of poet, and of physician; by that nobility of spirit, that loftiness of soul which is so beautifully illustrated in your daily life, we here claim you proudly, and joyously hail you as our colleague, our friend, and our brother. Henceforth your joys shall be our joys and your sorrows our sorrows. I pledge you in the name of my comrades and brothers, that the kindly regard that we now offer you shall live from the pleasant hour we now enjoy together to that far distant one when you shall leave us to occupy your predestined niche in the Walhalla of fame, surrounded as with a garment by that glory which kills the sepulchre, and embalms a name that it may live among the immortal ones that were not born to die."

"Literature" was the next toast, and was responded to by GEORGE WILLIAM CURTIS, who began by remarking that "Medicine has spoken the praises of our guest, and the Church and Law. And as the Church disposes satisfactorily of a man's mind, and Medicine summarily of his body, and Law most effectually of his estate, what remains for Literature to add of a doctor's subject so thoroughly disposed of, but that in literature he has chosen to build his most enduring monument.

"All of the Faculties have claimed him, and have spoken his praises. Each in turn has cried: 'Hail, Thane of Glamis! Hail, Thane of Cawdor!' And now comes Literature, with 'All hail, thou that shalt be king hereafter!'"

It was nearly midnight when MR. WHITELAW REID,

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of the *New York Tribune*, rose to reply to the last toast, "The Press." He said:

"If you are finding out by his poor words and halting manner how little and unimportant the mysterious 'We' of a big newspaper may be, what do you think of your own exhibition? There are here present at least a dozen of you from whom I myself have heard the most solemn and magisterial instructions as to how one should live. Avoid late dinners; avoid crowded rooms; eat simply; drink sparingly; don't smoke; three courses for your dinner and a single glass of wine; keep your dining-room cool; avoid drafts; be sure to have the air pure and fresh; never sit over an hour at table! Ah, yes; those are the familiar formulas. Every one of you remembers them; every one of you has given them a thousand times, and taken a good fee for it every time. Now we've got you out from behind the screen. This must be what you meant by it. This is the way you live. This is where the fees go. The united skill of two hundred doctors, concentrated upon the single problem of hygiene, how to produce for themselves the best and most wholesome way of dining, has resulted in this. [Laughter.] Well, well, it may be naughty, but it's nice; and we are more obliged than we can tell you for being shown at last, so satisfactorily and on the highest medical authority, just what 'Plain Living and High Thinking' mean.

"The newspapers have been spoken of as New York's Autocrats of the Breakfast Table. Oh, no; New York has no Autocrat of the breakfast table. In all the world there is only one; we shall never see his like again, and we are sure of him in New York only for to-night.

"Call us not autocrats, then; but mere doctors, like the rest of you. We too give prescriptions, and, like you, are often in doubt as to whether the patients will take them. We too are sometimes called on for remedies when we haven't a bit more idea than you what is the matter with the patients or what will help them; and we then are often as conscientious as you, and carefully disguise under our wise-looking prescription the formula for a harmless bread pill. Like you, we work solely for the good of humanity; but like you, while we are at it, we also expect humanity to find us a good living. Like you, we are occasionally mistaken in our diagnosis; and like you, we have a bad half-hour of it when our patients find us out, refuse our nostrums, and resolutely declare that they are suffering from no such maladies as we describe. A wise doctor, under such circumstances, humors his patient, and a wise journalist sometimes finds it best, however much against his grain, to let the people have their own way!"

Speaking of Dr. Holmes, he said: "If we were to judge indeed from the brilliant record of his performances, we might say that he really has the quality editors only pretend to; that he knows something about everything, and can write on anything. Consider the round of his accomplishments—as physician, medical lecturer, medical author; as microscopist, and photographer; as the best living writer of after-dinner poems; as the author of some of our tenderest and some of our most ringing lyrics; above all, to give in a word reason enough for a great fame, as author of *The Chambered Nautilus*, a perfect poem, if the English language holds one. Then recall his work in a series of magazine papers that form an absolute era in American literature, and give him a place alone—the only autocrat. Then remember his novels. We talk sometimes of looking, among our living writers, for the coming American novelist. If we mean one of unique type and of the first rank, he has come. Why seek farther than the author of *Elsie Venner* and *The Guardian Angel?*

"Your honored guest, Mr. Chairman, must have seemed to every one here the youngest man at your table to night. Yet we know, and perhaps may venture to say, that save for the ever-youthful spirit he is no longer young. The man who has written thirty-two successive annual poems for the class of 1829 must not be surprised that all the world knows by heart, if not his precise age, at least how long he has been out of college. It is one of the pleasantest things connected with his formal relinquishment of some of the burdens he has been bearing that he has the right, in this mellow Indian Summer of his fruitful life, to know that his fame is still a growing one. The very flash and glitter of his wit have sometimes blinded men's eyes to the rich and generous qualities that lay beneath it. Lowell painted him as

> "'A Leyden-jar, always full-charged, from which flit
> The electrical tingles of hit after hit.'"

On the conclusion of Mr. Reid's speech, Dr. Barker referred to a number of physicians who had sent letters of regret, and then called for a bumper to absent friends. It was drunk standing; the company sang "Auld Lang Syne" right heartily as a response, and then separated.

NEW ORLEANS.

(*From our Special Correspondent.*)

THE LOUISIANA STATE MEDICAL SOCIETY met in Shreveport, April 4th. The attendance was very large, and the proceedings were interesting and encouraging. The following congratulatory resolution was telegraphed to the Kentucky State Medical Society, being first unanimously approved by vote of the Society:

"The Louisiana State Medical Society, now in session here, sends fraternal greeting to the Kentucky State Medical Society, and trust they stand shoulder to shoulder with us in upholding the time-honored Code of Ethics of the American Medical Association."

The reply was equally expressive of a determination to sustain the Code:

"The Kentucky State Medical Society cordially reciprocate the greetings of their brethren of the Louisiana State Medical Society, and emphatically endorse the sentiments of allegiance to the Code and devotion to the honor and dignity of American medicine."

Before adjournment thirty-two members pledged themselves to pay annually into the treasury of the society, ten dollars, being double the annual dues.

THE CHARITY HOSPITAL.—An effort is being made in this State to build additional wards to the Charity Hospital, by voluntary contributions.

SMALLPOX is on the increase—86 deaths last week, 69 the week before, and 56 the week before that. From January 1st to April 1st there have been 1,167 cases, with 428 deaths. White, 523 cases, 144 deaths; colored, 644 cases, 284 deaths. The percentage is thus largely in favor of the whites, both as regards cases and deaths.

THE SANITARY COUNCIL OF THE MISSISSIPPI VALLEY held its session in Jackson, Miss. The New Orleans Auxiliary Sanitary Association was highly complimented. The Louisiana State Board of Health sent overtures offering to coöperate. The offer was "accepted in the spirit in which it was made," a statement capable of several interpretations. From the proceeding of the Council, it is very evident that unless the health authorities of New Orleans are candid and impartial this summer with regard to contagious diseases, yellow fever and the like, New Orleans will be the greatest sufferer. The citizens of New Orleans begin to recog-

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nize this now, though a short time ago a man who reported a case of yellow fever as such, except in a grave epidemic, laid himself liable to ostracism.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL has again changed its staff. Dr. Jno. Godfrey, of the U. S. Marine Hospital Service has gone out, and Dr. R. Matas has taken his place. No reason is assigned for the rapid change.

THE MARYLAND MEDICAL JOURNAL announces that it will appear as a weekly, on May 3d, and will be published every Thursday. It will continue under the able editorial management of Drs. Ashby and Cordell.

STATE MEDICAL SOCIETY MEETINGS.—The Medico-Chirurgical Society of Maryland meets at Baltimore, and the Texas State Society at Tyler, on Tuesday the 24th. The South Carolina Medical Association meets at Yorkville, on Wednesday the 25th.

SANITARY CONVENTION OF MICHIGAN.—A sanitary convention will be held in Reed City, Michigan, under the auspices of the State Board of Health, on April 26th and 27th. A number of valuable papers will be read, and it confidently expected that much good will result to the State.

THE MEDICAL ASSOCIATION OF THE DISTRICT OF COLUMBIA held its annual meeting a few days ago, and the following officers were elected for the ensuing year:

President.—Dr. D. R. Hagner.
First Vice-President.—Dr. D. W. Prentiss.
Second Vice-President.—Dr. F. A. Ashford.
Secretary.—Dr. J. F. Hartigan.
Treasurer.—Dr. George L. Magruder.

RESIGNATION OF PROFESSOR DETMOLD.—Professor William Detmold, who, for about thirty-five years, has held a surgical clinic at the College of Physicians and Surgeons, of New York City, has resigned that position. Dr. R. F. Weir has been elected to fill the vacancy thus created in the chair of clinical surgery.

THE ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA was held on April 13th. The degree of Doctor in Medicine was conferred on ninety-nine candidates. The Faculty valedictory was delivered by R. A. F. PENROSE, M.D., Professor of Obstetrics and Diseases of Women and Children.

A VOLUNTARY FOURTH YEAR AT THE UNIVERSITY OF PENNSYLVANIA.—The University of Pennsylvania has completed arrangements in its Department of Medicine for a voluntary fourth year of instruction, which it is hoped will be availed of by a gradually increasing number of students. The course includes the following subjects, in which the instruction is largely practical:

Clinical Medicine and Physical Diagnosis; Laryngology; Clinical Surgery; Operative Surgery; Venereal Diseases; Nervous and Mental Diseases, and Electro-Therapeutics; Gynæcology; Dermatology; Otology; Clinical and Operative Obstetrics.

The instruction extends throughout the full term, which will hereafter be seven months. Students of the University who pursue a four years' course, and who pass a satisfactory examination upon these studies of the fourth year, in addition to that upon those of the three years, will receive, in addition to the regular diploma, a certificate, appropriately signed and sealed.

PROF. CHARLES LASÈGUE.—*The Archives Générales de Médecine*, for April, is issued bordered in black, on account of the recent death of Prof. Charles Lasèque, its senior editor. It also contains an eloquent and feeling tribute to his memory, from the pen of his co-editor, Prof. S. Duplay.

A NEW WEEKLY JOURNAL, entitled *Health*, will shortly be issued in London. Its programme will include original articles, essays on health, with departments for interesting matters of the family circle, recreation, correspondence on health topics, etc.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending April 7, 1883, indicate that remittent fever, measles, and tonsillitis have increased, and that consumption, dysentery, bronchitis, and typho-malarial fever have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 7, and since, at thirteen places, scarlet fever at nineteen places, and measles at twenty-four places.

LIGATION OF THE INNOMINATE.—MR. MITCHELL BANKS tied the innominate artery on February 28, at the Liverpool Royal Infirmary, for aneurism of the second portion of the subclavian. The common carotid was also ligated. Mr. Girdlestone's kangaroo tendons were used with strict antiseptic precautions. The patient improved rapidly, and has left the Infirmary with his aneurism much better. This is the twenty-third case in which the innominate has been ligated; twenty-one proved fatal.—*Lancet*, March 31, 1883.

MONUMENT TO BUFALINI.—On March 31, 1883, the eightieth anniversary of his death, a monument of Prof. Maurice Bufalini, the distinguished pathologist, subscribed by the whole of Italy, was unveiled at Cesena, his native city.

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.—The Council met at Jackson, Miss., on the 3d inst., delegates from the medical societies, sanitary associations, commercial bodies, and health boards of twelve States being present. A Business Committee, composed of one member from each of the States represented, was immediately formed to formulate the regular order of business of the Council. Next morning this Committee submitted a series of resolutions which were freely discussed prior to their unanimous adoption.

Provision was made for the appointment of a committee to memorialize the President of the United States on behalf of the National Board of Health, petitioning that the $100,000 epidemic fund be placed in the hands of that Board in case its use is required. In the event of the inability of the National Board to carry out the system of inspection, which it had instituted, it was decided that this work should be carried on under the supervision of representatives of the Council, the rules and regulations heretofore prescribed by the Board being adopted.

Recommendation was made that the States of the Valley make voluntary contributions to be expended by the Executive Committee of the Council, in carrying out the inspection system in case no funds are placed at the disposal of the National Board for this purpose.

The system of inspection, isolation, disinfection, and quarantine, adopted by the National Board of Health, was recommended for the guidance of the health authorities of the Valley. The resolutions as reported by the Business Committee, constituted the Citizens' Auxiliary Sanitary Association the agents of the

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Council in making the inspections of freight and passengers in New Orleans, when such inspections were demanded by the local boards of health, but the representatives of that body refused a responsibility which was foreign to the purposes of the Association.

The action of the Council appears to have given satisfaction to the Louisiana delegation, and to the citizens of New Orleans, if we may form an opinion from the report of the representatives of the Citizens' Association. "Your representatives think that they have reason to be satisfied at the successful accomplishment of the much desired object of obtaining harmonious and concerted action in case of an outbreak of yellow fever in the summer of 1883; and we may say that the Louisiana delegation did contribute very materially by their advice, counsel, and discussion to this desirable result. The satisfactory result obtained was more gratifying than we had any reason to expect, after listening to discussions tainted in not a few instances by the acerbity engendered by unfriendly and most unwise criticism of a body, which if not *legally* constituted, will be found to reflect and have ample power to execute the will of an *united* people, whose calamities in the past are too deeply impressed ever to be effaced. Commerce with the valley States, should this city be declared infected, may be stopped at any moment by the action of the Sanitary Council of the Valley. You will, therefore, appreciate the anxiety felt by the delegates who represented the city of New Orleans. They may well congratulate themselves that the city government, the various commercial and medical bodies, and your Association accepted the cordial invitations given to attend the meeting of the Council and participate in its deliberations. We all felt the importance of restoring that condition of confidence, so unfortunately destroyed, which secured 'the tranquility of the Valley in the presence of danger.' The danger alluded to was the existence of forty-nine cases of yellow fever in the summer of 1879: localized by means fully described in our annual address of February, 1883. Non-attendance at the meeting of the Council would have been construed as a defiance of its authority, and a doubt of its power to control commerce within the borders of the States of the valley. Whatever views may be held by individuals as to the policy or impolicy of this or that agency through which maritime quarantine should be enforced, or inland inspections made and health certificates granted, the interest of the city of New Orleans would be best promoted by accepting the situation as one which the citizens cannot control. We may do as we please, but in the case under consideration to act in a hostile manner towards the Sanitary Council of the Mississippi Valley will, in the event of a lesser outbreak of yellow fever than that of 1879, result in a total cessation of inland commerce and travel."

MICHIGAN STATE BOARD OF HEALTH.—The Michigan State Board of Health held a quarterly meeting at its office in Lansing, Mich., on April 11, 1883. The SECRETARY presented a *résumé* of the work performed by other State Boards of Health, and a review of sanitary legislation in other States. He stated that in Michigan the House of Representatives had passed a bill which was likely to become a law, practically repealing that section of the Act establishing the State Board of Health which provides that the Secretary of the State Board of Health shall be the superintendent of vital statistics. If the bill becomes a law, the vital statistics will hereafter be entirely under the control of the Secretary of State. The Secretary referred to the alarming presence of smallpox in Nashville and New Orleans, and suggested that Michigan was in danger because of the approaching time when Southern people flock to the numerous summer resorts in Northern Michigan.

The Secretary was instructed to correspond with the National and other Boards of Health, and to do all that can be done to prevent the introduction of smallpox by quarantine and inter-State inspection.

The Secretary presented an account of *Sickness caused by Eating Salted Pork*. The sickness was attended by burning in the stomach and abdominal tenderness. Some of the meat was fed to four cats. The symptoms in the cats were, expansion of the pupils, vomiting, great thirst, and tenderness of the muscles. Diarrhœa was not present. Three of the cats died, the fourth one being barely able to walk after one month. They were attacked twelve hours after eating the meat. A partial microscopical examination of some of the meat by Prof. T. J. Burrill, of Champaign, Ill., disclosed nothing within the meat to have caused the illness, but on the surface of the "lean" portions there was found a *micrococcus* enormously numerous, as well as some fungous developments of a mould-like kind sparsely present. The *micrococcus* was of a new variety, entirely distinct from that of "hog cholera," which latter was not detected in the specimen. It is not known whether the organism was on the pork when it was used for food, and it has not yet been determined whether it is now alive. Culture-experiments will be instituted to determine that point. It is quite devoid of motion and has a less dense or firm appearance than most of its congeners. It takes the ordinary aniline violet stain. Usually two are connected in a figure 8 form, rarely more. The Secretary presented statements from Mr. Love, Clerk of the Board of Health of Grand Rapids, showing successful prosecution for selling diseased meat in several cases.

In the afternoon session, Prof. R. C. Kedzie made a report of his attendance at the *Meeting of the Sanitary Council of the Mississippi Valley*, at Jackson, Miss., April 3, 1883, at which he represented the Board. He reported that the meeting was unanimous in urging the continuance of the National Board of Health, and the system of river and railroad inspections, to insure the prevention of the spread of epidemic diseases, without the obstruction of travel and commercial relations between the States, and of such surveillance of the port of New Orleans as will give to the several State and important Municipal health authorities represented in the Council prompt and reliable information of the occurrence and progress of an epidemic disease in that city. Plans for such work were discussed and adopted; and it was understood that in case of the failure of the national government to carry it on after June 2, beyond which time the National Board of Health will be unable to sustain it, unless President Arthur places the $100,000 appropriation at its disposal, it will become important and necessary for the several States endangered to supply, in some way, the money to carry on the work. Delegates from Mississippi, Arkansas, and other States, pledged certain amounts in case it proves to be necessary. (Michigan has never made an appropriation available for use in preventing the *introduction* of epidemic diseases.)

This being the annual meeting of the Board, the election of a president for the ensuing two years resulted in the election of Hon. John Avery, M.D., of Greenville.

Invitations to hold sanitary conventions at Muskegon and Ionia were accepted, the dates to be hereafter decided upon.

The Secretary was requested to prepare a memorial to the President of the United States, petitioning that he place the $100,000 appropriation in the hands of the National Board of Health.

The Board after performing routine business, adjourned to meet at Reed City, Michigan, April 26 and

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27, 1883, at which time there will be a sanitary convention at that place under its auspices.

CONTAGION FROM RAGS.—The danger of contagion from rags was illustrated a short time ago in a large paper-mill in New Cathcart, Scotland. A number of the work-people were engaged in sorting and cutting rags in the usual way when four of them, in the course of a few days, were seized with smallpox. The rags were consigned from Königsburg, Germany. A form of blood-poisoning among factory people is also known in Yorkshire, which has come to be known as the "wool-sorter's disease." The germs are introduced in bales of mohair, which come from certain localities in the East, where the people are notorious for their utter disregard of all sanitary precautions and regulations. The mortality among those attacked by the "wool-sorter's disease" is said to be very high, and death ensues with a suddenness which is appalling.—*Sanitary News*, March 15, 1883.

CONTAGIOUS DISEASES AT THE LIVERPOOL QUARANTINE.—During the year 1882, according to the report of the Health officer of the port, 19,781 vessels, steam and sailing, entered the port of Liverpool, England, and of these 4,840 were specially inspected. The American vessels examined, 120 in number, were found to be the best-conditioned foreign ships which entered the port. Fifty-eight vessels brought with them a history of sickness during the voyage. Smallpox, measles, scarlet fever, cholera, remittent, typhoid and yellow fevers appeared in the list of diseases imported. The smallpox cases came from Bordeaux and Gibraltar, New York, Philadelphia, Bahia, Pernambuco, and the West Indies; measles from New York, Philadelphia, and Boston; scarlet fever from New York and Montreal; cholera from Calcutta, in the "Arethusa" and "Royal Alexandra;" remittent fever from the West Coast of Africa and Carthagena; typhoid fever from New York; and yellow fever from Carthagena, West Indies, and Pensacola, Florida.

SMALLPOX IN AFRICA.—During the past six months smallpox has been devastating the more populous settlements. Cape Town and St. Paul de Loanda suffered terribly. Recent official despatches show its extension into Northern Africa. In the city of Morocco over nine hundred persons have died of the disease in the Jewish quarter of the town during the past two months. The deaths among the Moorish population were not reported, but it is believed that the number must have been very large. At the northern capital, Fez, several cases have made their appearance, some of which terminated fatally. A few deaths have been reported from Gibraltar, Spain.

BERI-BERI.—In a recent communication to the Department of State, Consul Morey, of Ceylon, quotes some passages concerning this disease from a report of a survey of the Maldive Islands, made in the early part of this century, by the commander of the East India Company's Surveying Ship "Benares." The report states that the Lascars attribute the scourge to the Maldiva wind; that on two passages from Bengal, at different seasons of the year, many of the native sailors and two or thre Europeans were attacked with the disease, which commenced with a depression of energy, swelling of the feet and ankles, rapidly ascending to the chest, which also swelled, and then the afflicted person speedily died. Death often occurred in a few days from the commencement of the attack, but in other cases the swelling was confined to the legs for several weeks; and in these, recovery took place under the influence of nourishing food and antiscorbutics.

Mr. Morey has found from an oriental work, that strangers coming to Ceylon in very ancient times, were often attacked by a disease then called in Sanscrit, Aja-ghosta, or goat's voice fever, and that the symptoms of this ancient scourge tally exactly with those of the Maldive beri-beri. The cause of Aja-ghosta was said by the ancient writers, to be poisonous exhalations from the damp earth and improper sustenance, and it was considered an epidemic disease. Mr. Morey, who has spent much time in the study of this subject, concludes that beri-beri is an acute form of scurvy, arising from bad air and improper food; that it is likely to appear anywhere in the tropics where these conditions prevail; and that it is not at all peculiar to Ceylon, although identical with Aja-ghosta, for that disease was probably prevalent in many parts of Asia, although its presence is unchronicled for want of those historical records which exist in Ceylon. The disease only appeared on land in thickly wooded localities, where it is now unknown, owing probably to the clearing of forest and jungle, and improved drainage. Its prevalence at sea among the Lascars, he conceives to be readily understood. Most of them having been bred in the localities where the disease would be likely to prevail, would be predisposed to its attack, and when deprived of suitable food and confined when debilitated, in the filthy and ill-ventilated quarters on shipboard in those days, would promptly fall victims to its influence.

OBITUARY RECORD.—FRANZ VON RINECKER, Professor of Mental Diseases and Cutaneous and Venereal Diseases in the University of Würtzburg, has recently died at the age of seventy-two years.

—— The death of VLADESCU, Professor of Ophthalmology in the University of Bucharest, is announced.

—— The death in London, on April 16th, of WILLIAM FARR, M.D., F.R.S., D.C.L., at the age of 76, is announced. From an early age he evinced a strong taste for statistical inquiry, and in 1838 was appointed Compiler of Abstracts in the Registrar-General's Office, and while in that position organized the statistical department, of which he was superintendent for many years. He was a commissioner for taking the census in 1851 and 1861, and represented the British Government at the International Statistical Congress held at various times in the chief capitals of Europe. He was a large contributor to the Statistical Society of London and the author of several valuable papers on statistics.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 9 TO APRIL 16, 1883.

ALEXANDER, CHARLES T., *Major and Surgeon.*—To be relieved from duty at the U. S. Military Academy, West Point, New York, August 28, 1883.—*Par. 6, S. O. 82, A. G. O., April* 10, 1883.

WOLVERTON, WM. D., *Major and Surgeon.*—Granted leave of absence for four months on surgeon's certificate of disability.—*Par. 7, S. O. 85, A. G. O., April* 13, 1883.

BARTHOLF, JOHN H., *Captain and Assistant Surgeon.*—The extension of leave of absence for twenty-three days, by S. O. 37, c. s. Department of the Columbia, further extended one month.—*Par. 1, S. O. 31, Military Division of the Pacific, April* 3, 1883.

GIBSON, R. J., *Captain and Assistant Surgeon.*—Relieved from duty at Cantonment, on the Uncompahgre, Colorado, and assigned to duty at Fort Hays, Kansas.—*Par. 1, S. O. 73, Department of the Missouri, April* 7, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, APRIL 28, 1883. No. 17.

ORIGINAL LECTURES.

ON THE TREATMENT OF NEURALGIA.

A Clinical Lecture

BY PROF. DUJARDIN-BEAUMETZ,

MEMBER OF THE ACADEMY OF MEDICINE, PHYSICIAN TO THE HOPITAL ST. ANTOINE, ETC., PARIS, FRANCE.

(*Concluded from p.* 434.)

HAVING finished symptom-medication, and considered successively anodyne, revulsive, and empirical modes of treatment, we come to our second part, or pathogenetic medication.

You remember that we referred to three principal causes the etiology, or rather the pathogeny, of neuralgia; this disease being the result of modifications affecting the integrity of the nervous system, central or peripheral, or of the blood, or finally of the circulation. Here, then, are three classes of causes which we must pass in review.

From the stand-point of the nervous system, leaving one side alterations, more or less profound, and compressions of the nerves, I desire to call your attention to two points: first, the predisposition to neuralgias in the neuropathic and hysterical; second, to inflammation of the nerve-tubes or neuritis.

Neuralgia is one of the manifestations of the nervous temperament, and it may be affirmed that every nervous person suffers more or less from it. In these cases we witness the triumph of the bromides and of hydrotherapy. Bromide of potassium (alone or associated with other bromides), cold douches, local or general, and suitable outdoor exercise are the most certain methods of cure of neuralgias due to neuropathy; electricity, and especially static electricity, is a useful adjunct.

Neuritis is one of the causes of obstinate neuralgias; it entails atrophy of the member, and trophic cutaneous disturbances. The most effective remedy for neuritis is revulsion, which has a favorable influence on both pain and inflammation. Here all the revulsive methods before alluded to are applicable, and especially active cauterizations. To counteract the trophic troubles, you should have recourse to galvanism.

Neuralgias due to circulatory modifications are of two kinds, congestive and anæmic. Congestive neuralgias are especially frequent in the arthritic, and are best treated by ergot and aconitia. It is especially in facial neuralgias of plethoric persons, with marked congestion of the face, that aconitia is effective, and this by a sort of double influence on the circulation and on sensory innervation. Marino[1] has recently proposed ergotine for these congestive neuralgias, basing his recommendation on the known effects of this drug in constricting the minute vessels and anæmiating the tissues. I have never used this drug in neuralgia, having almost always found in aconitia a heroic and certain remedy. In neuralgias from cerebral anæmia, morphia is *par excellence* the medicament. It removes pain and provokes a salutary congestion of the sensory nerve-centres, which directly antagonizes the cause of the pain. Gymnastic exercises and hydrotherapy are most excellent adjuvants in these cases.

As for the alterations of the blood, which are the point of departure of dyscrasic neuralgias, they are very numerous, and chlorosis deserves the first mention. It may be affirmed that every chlorotic girl is neuralgic, and here we have an illustration of that grand principle of Hippocrates, *sanguis moderator nervorum*. Therefore, every therapeutic means which shall augment the richness of the blood, and the proportion of its hæmoglobin, is appliable to these cases; ferruginous or arsenical medication, baths of compressed air, inhalations of oxygen, country air and exercise, hydrotherapy, gymnastics, nourishing food, all these remedial measures are indicated. I cannot too strongly urge the use of arsenic in these cases of chlorosis; in my experience, the arsenical treatment has been quite as successful as the ferruginous, if not even more so; for arsenic acts, not only as a reconstituent, but it is a direct modifier of nerve substance. Those who have had the most practical acquaintance with the use of arsenic in neuralgia are the most emphatic in its praise.

This medicament may be given in the form of Fowler's solution; dose, three to ten drops after meals. [Anstie prefers this form of administration; he finds arsenic especially useful in neuroses of the par-vagum.] It is also given in granules and in pill form. [The combination with quinine, ext. aconite, and strychnine of Dr. Gross, known as Gross' neuralgic pill, is a favorite one in the United States.][1]

Certain neuralgias are of malarial origin; here we witness the triumph of sulphate of quinine. Marrotte has given us a good description of these *febrile* neuralgias, due to marsh poison. Where there is any reason to suspect any pathogenetic influence of this kind, you should be particular to ascertain whether the neuralgic attack comes on at a fixed hour, in which event you can easily and speedily control the affection by a full dose of quinine. You can increase the effect of the quinine by combining it with aconite, giving every three hours a capsule or wafer containing one-quarter of a milligramme of crystallized nitrate of aconitia, and twenty-five centigrammes of quinine; four of these may be given each day.

The diatheses, and in particular, syphilis, arthritism, dartre, have often a marked etiological relation to neuralgia. As for the first, you must not confound the so-called "osteoscopic pains" with the neuralgic pains, which really often exist under the influence of syphilis. These cases demand the ordinary anti-syphilitic treatment.

As for neuralgias of arthritic origin, they are among the most frequent, and sciatica and gout are often one and the same thing. The means which succeed the best in the treatment of gouty and rheumatic neuralgias are baths, and in particular, sulphur baths and vapor baths; the latter are often medicated to advantage with turpentine or pine shavings. In rheumatic neuralgias, the thermal waters are often successful; those of Plombières, Bourbonne, and especially Aix-les-Bains. In these neuralgias we may employ cyanide of zinc, proposed by Luton, and especially salicylate of sodium.

[1] Marino, Ergotina per use Epidermico, nelle cure delle Neuralgia, Palermo, 1877.

[1] *Vide* Cohen on "Arsenical Treatment of Neuralgia" in *Journ. Med. de Bruxelles*, 1864. Barilla, in do., for 1863. Vanlair, *The Neuralgiæ, their Forms and Treatment, etc.*, 1882.

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The dartrous neuralgias are readily amenable to the arsenical treatment.[1]

Such is a somewhat curt summary of the principal indications of the pathogenetic treatment of neuralgia. I must now briefly consider the therapeutics of certain forms of neuralgia, and for convenience of arrangement will begin with the foot and end with the head.

Plantar neuralgia is one of the most painful of neuralgias, and incapacitates the sufferer from walking or standing. It is especially gouty and rheumatic patients that are affected in this way. This neuralgia is often rebellious, lasting months and even years. You have seen a good example in our wards; I allude to a certain female, who, in consequence of rheumatism following an accouchement, has been for six months confined to her bed from plantar neuralgia. What has seemed to succeed best in her case has been the application of strong tincture of iodine, and hot sulphur foot-baths.

I shall not dwell long on sciatic neuralgia, which has been often taken as the type of neuralgia. Here the revulsive medication, carried out in all its rigor, succeeds best. Sciatica is often a neuritis, and it may almost with certainty be affirmed, when this neuralgia is obstinate, and is not due to compression of blood-vessels, viscera, etc., that it proceeds from inflammation of the nerve. I believe that this frequency of neuritis of the sciatic nerve results from proximity of that nerve to the surface, and from the modifications which it is likely to experience from external influences, and especially from atmospheric changes; there is certainly no form of rheumatic neuralgia so common.

Apropos of these stubborn sciatic neuralgias, I must remark that they are often dependent on affections of the spine, especially when they are bilateral. Essential double sciaticas are very rare, and when they occur, are generally occasioned by tabes dorsalis, or, as Worms has shown, by diabetes.[2]

Neuralgia of the uterus, bladder, testicle, and spermatic cord have frequently been observed. I know that it has been disputed whether these *visceralgias* ought to be considered true neuralgias, but it is of little consequence what we call them, they are painful affections, and prompt relief is demanded. In uterine neuralgia, cauterizations are of striking utility. You will in fact observe a certain number of females, who, apart from all organic disease of the uterus, suffer pains in that organ presenting all the distinctive characters of neuralgia. In these cases revulsive applications to the os or cervix with the Paquelin cautery, or the acid nitrate of mercury, give excellent results. Do not, however, forget that in this neuralgia of the organs contained in the pelvis, one of the best methods of administering anodynes is the suppository. [Here the morphia suppository of the U. S. P., with one-third grain extract of belladonna, will do good service.]

Ileo-lumbar neuralgia is often the cause of cruel suffering, besides being rebellious to the most energetic treatment. In fact, this affection is frequently due to profound troubles of the kidney, and particularly to renal lithiasis. You are aware that in these renal cases of persistent neuralgia it has been proposed to remove, or to open, the kidney; in a word, to perform nephrectomy or nephrotomy, as Professors Leon Le Fort and Le Dentu have done. I pass by gastralgia, hepatalgia, and the greater part of abdominal neuralgias, only referring you to what I have already said in regard to them while treating of diseases of the stomach, liver, and intestines, and I come now to intercostal neuralgia. This is a very common neuralgia, and all delicate, nervous women suffer from it more or less. Peter, in his remarkable lessons on *pains in the side*, insists that intercostal neuralgia is always limited to the left side; I do not quite agree with him in this. It is true that the far greater part of painful intercostal affections are on the left side. You will nevertheless now and then see hysterical patients whose painful sensations and whose anæsthesia are exclusively right-sided. On whichever side it may occur, this neuralgia is obstinate, and resists not only morphine injections, but also revulsive treatment. Hydrotherapy, applied in the form of douches to the painful region, seems to me one of the best means of combating this rebellious intercostal neuralgia.

I shall finish this lecture by a brief consideration of the neuralgias of the fifth nerve.

Odontalgia, I need not tell you, is one of the most common of painful affections, and every one has at some time experienced the atrocious pain of toothache. This neuralgia is often determined by alveo-periostitis, or by a carious tooth, which affects the terminal portion of the dental nerve. There exists a ready means of relief for this pain in arsenious acid, which destroys the dental pulp, a method which Tomes, Magitot, and Combe have advised. A paste is recommended (to be applied on cotton to the cavity of the tooth), consisting of two parts of white arsenic, two of morphia, one of gum tragacanth, and one of glycerine. Among the numerous measures which have been employed against odontalgia, Bouchaud has counselled electricity. His method is to place the positive pole over the diseased nerve, and the negative pole a short distance from it, and to pass a mild continued current.

A word now about facial neuralgia, properly so called. These neuralgias affect sometimes the supra-orbital nerve, sometimes the infra-orbital branches; these last are the most obstinate. As I have already told you, they often yield readily to treatment by aconitina, or to sulphate of quinine when of an intermittent character. They sometimes defy all treatment, and have been known to involve the facial nerve, as well as the fifth. Without discussing the question of recurrent neuralgia—a subject which has of late been treated in a brilliant manner by Cartaz—you all know that neuralgia is often accompanied by painful contractions, and that to this syndrome the name has been applied of epileptiform neuralgia, or tic douloureux of the face. It is the most atrociously painful affection that has ever afflicted humanity, and instances have been known where it has driven its unhappy victim to suicide.

It is in these cases that surgery steps in, with its nerve-stretching and neurectomy; here too the advantages of galvanism have been lauded. If you employ electricity, you must never exceed a certain intensity, (two or three milliampères, for instance); you must also, as Apostoli enjoins, make use of rheostats, and interpose a certain resistance to the current, to avoid the *photopsias* which are produced with each modification of the current. It is understood that the positive pole must be placed over the painful point, and as for the duration of the *sèance*, it ought to be continued till the pain disappears.

I must, before finishing, say something about migraine, which (therapeutically at least) belongs to the neuralgias. You are not ignorant of the discussions which have arisen over the pathogeny of migraine, some considering it simply a neuralgia of the tri-facial, others as a special neurosis of the same nerve, or even as a neuralgia of the brain itself, a cerebralgia, as Romberg

[1] Marrotte. "Febri-neuralgiés de l'esthime du Gosier," *Bull. Gen. de Therap.*, 1874. Abbot, "Sciatic and Facial Neuralgia Treated by Salicylic Acid and Salicylate of Sodium," *Boston Med. and Surg. Journ.*, July, 1879. E. Labbé, "Neuralgiés traités par le Salicylate de Soude," *Soc. de Therap.*, Paris, Feb. 9, 1881. Lagrelette, "De la Sciatique," *Th. de Paris*, 1869. This writer advocates strongly vapor baths and hydrotherapy in sciatica.

[2] Worms, Symmetrical Sciaticas in Diabetes, Paris, 1880.

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maintains. There are still others who assert, as does Du Bois-Reymond, that the principal seat of migraine is the cervical portion of the great sympathetic. This is the view generally held in France, especially by Gubler and Jaccoud. It is, in fact, probable that migraine is not a simple neuralgia, but a complex neurosis, affecting alike the cerebrum, the trigeminal nerve, and the cervical portion of the sympathetic.[1]

Whatever its pathological nature, migraine is a very distressing affection, and you will often be consulted in reference to it. You ought always, if possible, to ascertain the first cause, and as far as this is concerned, this is what you will discover: in nine cases out of ten migraine is a diathetic affection, and for my part I have frequently observed it in hemorrhoidal, arthritic, and asthmatic subjects. Your treatment then should be directed to the arthritic diathesis, of which the migraine is an expression. At other times you will find the migraine due to causes of a different character, occasional causes to which you should address your therapeutic endeavors. These causes may be ranged in three groups; first, excess of work, and especially brain work during the night-time, and with the aid of too strong a light. Piorry referred all migraines to fatigue of the eyes; to him, migraine was only a manifestation of *irisalgia*. Second, anæmia; the megrim of chlorotics is an example, coming on whenever by any cause the organism is enfeebled. Third, congestive head-troubles, instances of which we see in the hemicranias of the gouty or arthritic.

The first class of patients are benefited by rest from mental toil, and by bromide of potassium; the second may require hydrotherapy and morphia; the third will need alkalies, intestinal derivatives, and especially aconitia.

I have finished this long exposition of the treatment of neuralgia, exposition far from complete notwithstanding its length. I believe, however, that I have furnished you the general principles which ought to guide you in your practice.

In the combat with pain your therapeutic resources will be taxed to the uttermost, and you can only fulfil your professional duty by the intelligent endeavor *always to relieve, if you cannot cure.*

ORIGINAL ARTICLES.

THE QUESTION OF TREPHINING IN INJURIES OF THE HEAD.

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(*Read before the New York Surgical Society, March 27, 1883.*)

THE operation of trephining the skull having been performed in my service at the Roosevelt Hospital in seven cases during the past year, I have thought that a brief account of these cases might be profitable by eliciting from the members of our Society their experience in the operation, and more especially their views in regard to the indications for its performance. For ages past no surgical procedure has been the subject of keener controversy; and the diversity of opinion which still prevails concerning it suffices to prove that the question of its value is yet unsettled, and that it is one of inherent difficulty and obscurity. Further discussion, therefore, appears to be desirable, particularly when we consider the fact that a few American surgeons have lately endeavored to extend the sphere of the operation, by reviving the obsolete practice of trephining in cases of simple fracture attended with displacement or depression, even in the absence of head-symptoms, and merely as a preventive measure.

Before proceeding to relate briefly the cases above referred to, it may be proper to state that I shall employ the term trephining in its wider sense, which includes, under this designation, the several methods by which fragments of bone are elevated or removed, whether by means of a trephine, Hey's saw, chisel, elevator, or gouge-forceps.

Out of the seven cases the operation was performed once for simple fracture with depression, four times for compound fracture with depression, and twice for epileptic and paralytic affections following an injury.

CASE I.—On August 23, 1882, a boy, aged 13, was brought to the hospital in a semi-comatose state, caused by a fall from a horse just before his admission. On examination, a scalp wound was found over the left, and a hæmatoma over the right parietal bone; but no fracture was discovered. The left side of the body was partially paralyzed. Treatment: iodoform dressing to scalp wound; ice-cap to head.

Aug. 25.—Patient still comatose. Dr. Halsted, the assistant surgeon, suspecting fracture, made a crucial incision over the right parietal bone, and discovered an extensive depressed fracture of the right temporal and of both parietal bones, running upward beyond the vertex. A large piece of the temporal and several fragments of the parietal bone were elevated or removed, and on following up the line of fracture to the vertex a rent was found in the dura, through which a considerable amount of brain-substance had escaped. During the operation the superior longitudinal sinus was wounded. Bleeding was arrested by pressure, and the external wound was partially closed by suture. Consciousness did not return, and death occurred two hours after the operation.

Evidently in this case the operation was useless; and undoubtedly it would not have been undertaken if the extent of the injury had been known beforehand. The case may serve, however, to enable us to discuss the general question as to the expediency of trephining in simple depressed or comminuted fracture, accompanied or not by symptoms of compression or other cerebral injury. It is hardly necessary to remark that a fracture of the skull derives its chief importance from the concomitant or subsequent injury which is sustained by the intra-cranial contents; and just as no prudent surgeon would dream of converting a simple fracture of the leg into a compound one for the sake of obtaining an accurate adjustment of the fragments, so the plea for preventive trephining in cases of simple depressed or comminuted fracture of the cranium, without head-symptoms, is based

[1] Tissot, *Nerves and their Diseases*, t. xi., Paris, 1873. Bouillaud, *Nosographie Medicale.* Pelletan, *Coup. d. œil sur la Migraine et sur ses divers traitements.* Du Bois-Reymond, *Archiv fur Anat.*, 4th livraison, 1860, p. 461. Gubler, *Dict. des Sc. Med.*, Art "Migraine." Piorry, *Memoire sur la Migraine, Traite Med. Pratique*, t. viii. p. 73.

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upon the supposition that by operating, the danger of subsequent cerebral mischief will be averted. I cannot admit the force of this argument, which seems to me to undervalue, on the one hand, the resources of nature, and, on the other hand, the risks inseparable from surgical interference. Every surgeon present has doubtless met with examples of simple depressed fracture, in which no alarming head-symptoms were present, and in which permanent recovery took place without any active treatment. Surgical literature abounds in such cases. Textor cites twelve instances of depressed fracture, verified by post-mortem examination, in seven of which the depression was complete, involving both tables, and in all of which recovery had taken place without any impairment of the cerebral functions. Similar observations have been recorded by Erichsen, Nunn, Bruns, and by many other trustworthy writers.

In cases of simple comminuted fracture, without marked depression, but with considerable displacement of the fragments, early trephining is sometimes advocated on the ground that unless the loose pieces of bone are removed by operation, they will probably become necrosed, and thereby set up fatal intra-cranial inflammation. But neither of these statements is confirmed by experience. We can rarely feel certain that the comminuted portions of bone, even though freely movable, are completely detached from their vital connections; for they may still be adherent to the pericranium. But, admitting their isolation to be complete, it is conceivable that their vitality might yet be preserved by newly formed attachments to the surrounding parts. In support of this view, I may cite a case lately published by Professor MacEwen, of Glasgow, who, having applied the trephine in a compound depressed fracture of the skull, took a piece of the inner table which had been completely detached, and laid it in the trephine-aperture. The transplanted bone caused no irritation, and the wound healed without any signs of inflammation. Nevertheless, it cannot be denied that necrosis may occur under the circumstances above mentioned, although it is comparatively rare when the fracture is simple. It must be also granted that when occurring, the suppurative action excited by the presence of the dead bone may extend to the membranes of the brain, causing fatal complications. But there are so many recorded examples of necrosis following gunshot injuries of the head, in which very large pieces of necrosed bone have been removed without the occurrence of cerebral symptoms, that preventive trephining can hardly be defended unless it can be shown to be an operation free from serious risk.

The performance of the operation in cases of simple depressed fracture, without head-symptoms, with the object of removing sharp fragments of the inner table which it is assumed may have irritated or penetrated the membranes of the brain, or perhaps the brain itself, seems to me also quite unnecessary. It is true that in severe cases of simple fracture the internal table is often very extensively injured; and Bergmann has aptly remarked that a mere inspection of museum specimens might lead one to infer that simple fractures were graver injuries than those which are compound. But clinical experience proves that these extensive osseous lesions are often recovered from without surgical interference.

On the whole, then, it would appear that the apprehensions felt by those who advocate preventive trephining in the circumstances mentioned are scarcely justified by observation. And if this fact is admitted, the propriety of performing the operation of trephining must be considered as, at least, very doubtful. If our means of diagnosis were more exact, and if we were able to predict what cases would turn out badly if left to nature, active interference would often be an obvious duty; but in the absence of such knowledge, it seems unjustifiable to subject the patient to an operation which must convert a simple into a compound fracture, with its attendant danger of suppuration in close proximity to vital parts. Although a firm believer in the excellence of antiseptic surgery, I regard the unbroken skin as a surer protection to the deeper parts than the best surgical dressing that has yet been invented; and when we remember that, occasionally, even in careful hands, accidents occur in performing the operation, such as wounding the dura mater, or perhaps the brain, or one of the larger sinuses, we have still further reason to follow the conservative method of treatment which is sanctioned by the teaching and experience of the great majority of living surgeons.

The course which should be pursued in cases of simple fracture of the cranial vault, accompanied by head-symptoms, is by no means easy to decide. The unknown quantity, vaguely expressed by the term "head-symptoms," often leaves us quite in the dark regarding the seat, nature, and extent of the traumatic lesions, so that we cannot foretell whether the operation of trephining will prove beneficial, useless, or injurious. In endeavoring, however, to arrive at a definite conclusion on this point, there are certain well-known pathological and clinical facts which may sometimes guide us. Compression of the brain, resulting alone from a fragment of depressed bone, is rarely of long duration. Often, as has been remarked, considerable depression exists without any interference with the cerebral functions; and even when the depressed bone causes symptoms of compression, these frequently disappear gradually as the cerebro-spinal fluid becomes displaced or absorbed, and the circulation in the brain is restored to its normal condition. Hence, even when we trephine successfully in cases of depression, we can not always be sure that the favorable result is due to our intervention. This point is happily stated by Dieffenbach, who records his experience in the following words: "A boy fell from the first story down upon a stone pavement, and received a fracture of the right parietal bone, of which a piece three inches in circumference was depressed several lines in depth. He lay comatose. I trephined him; he recovered, and I believed that I had saved his life by the operation. A year later he fell from the same place, and struck again upon the stone pavement, this time breaking

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the left parietal bone, just as he had before broken the right one. He recovered without trephining; again I believed that I had saved his life; and I began to think that he had shown much endurance at the time when he survived the operation."

It has been clearly shown that in severe cases of simple depressed fracture, accompanied with marked and prolonged signs of compression of the brain, other lesions usually coexist, such as contusion or laceration of the brain, or hemorrhagic extravasation, which may take place between the dura and the skull, in the arachnoid cavity, in the substance of the brain, or on its surface from the vessels of the pia mater. If we except those rare instances in which the compression is due solely to an extravasation between the dura and the cranium, we shall have no reason to expect that benefit would result from the application of the trephine. So far as the brain-substance is concerned, the damage it has sustained is beyond the reach of mechanical aid; its integrity, if restored, will be slowly regained, as in cases of ordinary apoplexy, by absorption of the extravasated blood. And the same process goes on, in favorable cases, when blood is effused upon the surface of the brain. We have probably all seen examples of coma lasting for days or for weeks after head injuries, but which yet ended in recovery, due, as we may fairly presume, to the gradual disappearance, by absorption, of the extravasated blood. When we consider how large a quantity of blood is often poured out within the cranium in cases of fracture, we cannot avoid the inference that the compression which it exerts is far greater than ever occurs from any depression of bone that we should think of treating by operation. In such cases trephining would be useless, either in consequence of the depth of the extravasation, or because, being widely diffused over the surface of the brain, the effused blood would not escape through the artificial opening made in the skull. Furthermore, the operation might, in some cases, prove injurious by provoking meningitis. In other words, the very facts which have been urged as affording an indication for the employment of the trephine in cases of simple fracture may, in my judgment, be used as an argument against the propriety of the operation. I refer to the gravity of the injury and the severity of the symptoms. Where the fracture is of great extent and accompanied with severe contusion or laceration of the brain, or with copious intra-cranial hemorrhage, it is extremely doubtful whether the trephine can ever be employed with advantage, while the operation must, by increasing the mechanical injury, and by favoring the occurrence of suppuration, add not a little to the already existing danger which threatens the patient's life. Perhaps I do not fully appreciate the comparative safety which attends the performance of the operation according to modern antiseptic methods; but I believe that in this class of cases future experience will prove active interference to be of doubtful utility.

There are two conditions, however, either one of which, when present, renders imperative an immediate resort to the trephine. One of these is the case in which the fracture is of limited extent, and in which there is reason to think, from its situation, or from the occurrence of monoplegia, monospasm, or hemiplegia, that a splinter from the inner table may have penetrated the motor tract of the cerebral cortex. But, as we have seen, the fractures which are attended with such displacement of fragments of the inner table are usually of small extent, and are almost invariably compound. The other case is the one in which compression of the brain is caused by an accumulation of blood between the dura mater and the cranium. Such an accumulation may result from a wound of the larger venous sinuses, but in a large majority of instances it depends on a wound or a laceration of the middle meningeal artery. The accident is most frequently accompanied by a compound fracture; but it may be met with in cases of simple fracture, and occasionally when no fracture is present. When there exists a compound fracture, the blood usually escapes through the external wound, thus rendering the diagnosis easy; but when the fracture is simple, or when the artery alone is injured, the extravasated blood separates the dura mater from the cranium, and may be poured out in sufficient quantity to cause fatal compression of the brain. The amount of blood thus extravasated may be as much as half a pint. When the brain has not sustained severe injury, and the symptoms of concussion are but slight, the signs of the arterial lesion may be quite characteristic. After a blow has been received, usually in the temporo-parietal region, the patient, although perhaps slightly stunned, soon regains consciousness, and exhibits no marked signs of cerebral injury. But, after the lapse of a few minutes, or possibly several hours, symptoms of compression appear, and soon become very marked, the patient often dying within twenty-four hours from the time of the accident. Hemiplegia sometimes occurs before insensibility is complete; and its detection is important, for the reason that a blow upon one side of the head has been known to cause a rupture of the artery on the opposite side. The accident affords a clear and positive indication for the application of the trephine, yet there are but few recorded cases of the operation. Adding one recent case to the list compiled by Bergmann, there are one hundred well-authenticated examples of hemorrhage from the middle meningeal artery. Of these, seventeen ended in recovery; and in twelve out of this number the blood escaped through an external wound. Of the remaining five, one recovered without operation, the diagnosis being confirmed by autopsy when the patient died three years later of pneumonia. The other four recovered after operation, the blood being evacuated through the trephine opening. In one of these cases, that of Hueter, the bleeding artery was secured by a ligature.

The four cases of compound depressed fracture may be related in a few words.

Case II.—A girl, aged 14, entered the hospital February 14, 1882, having been kicked on the head by a horse shortly before admission. Compound depressed fracture of frontal bone just above superciliary ridge. Depressed portion measured

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one-half inch by two inches. Patient unconscious. Trephine applied on outer side of depression by Dr. Parmley, house surgeon, and depressed bone elevated, and several loose fragments removed. Catgut drainage, salicylated cotton dressing; wound closed by sutures. Patient became conscious after operation, and had no head-symptom afterwards. Temperature never rose above 100° F. Discharged cured February 29th, fifteen days after injury.

CASE III.—Male, aged 23. Entered hospital June 22, 1882. Fifteen minutes previously was kicked by a horse, the injury sustained being a compound fracture of left side of frontal bone, just above superciliary ridge. Was able to walk into hospital, and showed no signs of concussion. Right pupil dilated. A portion of bone, one inch by three-fourths of an inch, comminuted and depressed. Ether. By means of trephine, gouge-forceps, and elevator, Dr. Weed, house surgeon, removed depressed fragments, and smoothed off sharp edges of bone, leaving aperture five-eighths by one inch and one-quarter. Dura uninjured. Catgut drainage. Silk sutures. Iodoform dressing. No bad symptoms. Wound healed, and patient discharged cured July 6th, fourteen days after accident.

CASE IV.—A man fell eight stories, and was brought to the hospital, comatose, October 3, 1882. Had compound fracture of right femur, compound fracture of the right parietal bone, and fracture of spine in upper dorsal region, the latter injury not being discovered until after death. Pieces of bone impinging on dura mater removed by Dr. Weed, house surgeon, leaving oval opening one inch and three-fourths in length. Patient remained comatose, and died thirty-six hours after admission.

CASE V.—Man, aged 50, admitted October 22, 1882. While under influence of liquor, fell upon a stove, striking the back of his head, and sustaining a compound depressed fracture in occipital region on the left side, just above superior curved line. Depressed bone measured three-fourths by one and one-half inch. Much comminution of both tables, especially the inner. No head-symptom; no wound of dura. Operation by my assistant, Dr. King. Patient etherized. Depressed fragments removed, and edge of aperture made smooth with gouge-forceps. Catgut drainage. Wound washed out, as in previous cases, with five per cent. solution of carbolic acid, and closed with silk sutures. Iodoform dressing. Patient progressed favorably, and was discharged cured November 5, 1882, fourteen days after admission.

Of these four cases, it may be observed that the third one was evidently hopeless when admitted, and that any operation under the circumstances was inexpedient. The remaining three are familar examples of recovery after trephining in compound fractures of limited extent, accompanied with depression and comminution of the bone, but not attended with any signs of serious injury to the brain. I believe that in such cases trephining is plainly indicated, and that many lives which would otherwise be lost are saved by the operation, which, by elevating depressed fragments, by removing fragments that are loose or sharp, and by permitting thorough antiseptic irrigation of the wound, reduces to a minimum the risk of intra-cranial inflammation, so greatly to be dreaded in this class of cases. To insure success, however, the operation should be performed soon after the injury, and with strict antiseptic precautions. I recall an instance in which many years ago I unfortunately delayed the operation until the third day, in consequence of the entire absence of head-symptoms. When these occurred I trephined, but lost the patient, who, I believe, might have been saved by earlier interference. If trephining has not been performed soon after the accident, and the wound seems to be doing well, I should consider it objectionable to disturb it at a later period, unless the operation was indicated by the occurrence of decided symptoms pointing to intra-cranial mischief, as I have seen cases of recovery from compound depressed fractures in which the bone was not elevated, but I do not remember to have met with such an instance except in children, who, as is well known, bear head injuries much better than is the case with adults.

While believing that trephining is to be recommended in all cases of compound fracture in which the depression is marked, but of no great superficial extent, and in all cases of punctured fracture, where there is reason to suspect that the internal table is extensively splintered or depressed, I am strongly opposed to active interference when the fracture is of great extent, and when the depression is not limited or abrupt. It is true that these cases are usually fatal, but I am sure that nothing can be gained by the extensive operative procedure that would be involved in any attempt to remedy the displacement. Aside from those cases in which the brain has suffered irreparable damage, I think that in future many successes will be obtained by careful antiseptic treatment of the wound, such as is recommended by Lister in the management of compound fracture of the bones of the extremities. The most scrupulous cleansing of the wound, the arrest of hemorrhage, the removal of foreign bodies, loose fragments of bone, and of detached portions of brain matter, if present, followed by proper drainage and dressings, are, in my judgment, the only means, which, with our present knowledge, promise any benefit in this nearly desperate class of injuries.

In the two cases that complete my list, trephining was performed at a period remote from the date of the accident.

CASE VI.—Wm. G., aged 26, entered the hospital June 26, 1882. Nine years ago was struck on the head by a piece of slate weighing one pound and a quarter; became immediately unconscious, and remained in bed several weeks; when consciousness returned, left hemiplegia was observed. This remained nearly complete for several months, after which it gradually diminished and nearly disappeared. A few weeks after injury, began to suffer from epilepsy, and has ever since been liable to frequent attacks. Left hand somewhat weak; un-

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able to contract index finger. Patient lively and talkative, but mind evidently impaired. On the right side of head, near parietal eminence, is a depression of bone, about one and one-fourth inch in diameter; its right edge is one and one-half inch from median line, and its centre just in front of the Rolandic line; depth of depression at centre greater than elsewhere, and estimated to be one-fourth of an inch; scalp over depression marked by a crucial scar, the point of crossing corresponding with its deepest part.

Operation, June 27th: Bone exposed by a crucial incision, and trephine applied just behind margin of depression; piece removed was five millimetres in thickness. By means of gouge-forceps, the depressed bone, as well as that adjacent to it was removed, leaving a nearly circular aperture, measuring four and one-half by five centimetres. The depressed bone was quite vascular, and was considerably thickened, being twelve millimetres in thickness at its central part. No adhesions between bone and dura; no morbid condition discovered beside those already mentioned. Wound closed by silk sutures, without drainage; iodoform dressing. Before and after operation, patient took daily ninety grains of potassium bromide. Recovery took place without a bad symptom, the temperature never exceeding 100° F. The dressing was not changed until the end of a week, when complete union was found to have taken place externally; the scalp was considerably elevated, however, by a fluid accumulation beneath it, which was probably either blood or serum; it disappeared by absorption in the course of the following week, at the end of which time the patient left the hospital, in about the same condition, as regards want of mental and muscular power, as when he was admitted.

A letter, dated March 25, 1883, has just been received from the patient's father, stating that the operation has been followed by some amelioration of his condition, the epileptic seizures being somewhat less violent, the headache less intense, and the weakness of the right hand less marked.

This case was sent to me by my friend, Prof. Seguin, who advised the operation as a last resort, medicine having failed to afford the desired relief. What permanent benefit will result from the removal of the depressed and thickened bone, it remains to be seen; yet I anticipate little, if any. It seems far more rational to ascribe the patient's symptoms to textural alterations in the cerebral convolutions resulting from the primary injury, than to assume that they were due to the slight diminution in the size of the cranial cavity, caused by the depressed and hypertrophied bone.

Twenty years ago I assisted Prof. Willard Parker in operating on an epileptic girl, who had been subject to the paroxysms since her early childhood, and who had a well-marked hypertrophy of the right parietal bone, situated near the vertex. The bone was an inch in thickness at its middle part, and projected both externally and internally, the internal projection being estimated to be three-eighths of an inch below the normal plane of the internal table of the skull. The tumor was completely removed, leaving a circular aperture which was two inches in diameter. The dura mater was healthy, and not abnormally adherent. Recovery from the operation was speedy and satisfactory; but a month later the fits returned, and six months afterward became as frequent and violent as before. In this case there was no history of injury, and therefore there was greater reason to hope that an operation would prove beneficial.

Case VII.—Margaret F., æt. 39, married (?), was sent to me by Dr. R. W. Amidon, who saw her early in November, and has furnished the following notes of the case. "Bright's disease three or four years ago (swollen feet, backache), was sick nine months. Five weeks ago struck head (left parietal region) against sharp corner, was knocked down and dazed, but not stunned; no fit at that time; no signs of fracture or concussion; thinks there has always been a lump there since.

"Two weeks after injury had a 'fit,' lost consciousness and fell. Since then, at intervals of about a week, has had short epileptic attacks, preceded by queer feeling in tongue, sensation of pins and needles in right hand, then an invasion of right hand, and loss of consciousness very short, three or four seconds. Afterwards feels weak, and sleeps. Thinks that right hand has lost strength; has headache in right fronto-parietal region; denies syphilis. On examination, right side of face weak, tongue straight when protruded, grasp of left hand nearly as strong as right (25 : 30), a doubtful limp in right leg, tenderness over site of injury, which patient indicates as over middle third of ascending parietal convolution. Slight aortic direct murmur. Ophthalmoscopic examination shows optic disk not choked. Diagnosis: traumatic epilepsy. Treatment: potassium bromide. November 13th, sent to Dr. Sands for operation."

Dec. 18.—Has been under treatment with bromide of potassium in ten grain doses, *ter in die*, for some time. Has severe headaches, and at times a piercing pain just at the point of injury; has had no convulsive attack since admission, and has been going about the hospital ward; discharged, improved.

Jan. 13, 1883.—Readmitted. Has pain on left side of head, is aphasic at times, and shows some loss of power in both arms; has fits, and during the fits says she froths at the mouth, and bites her tongue.

16th.—Last night had a severe headache, and could not sleep on account of pain.

17th.—Slight facial paralysis of right side; nasolabial fold narrowed; the tongue, in protruding, deviates to the right side.

18th.—Both pupils dilated to one-fifteenth of an inch; the left pupil contracts moderately on on exposure to light; the right less so; neither responds perfectly.

20th.—Is very stupid, and sleeps most of the time. Ordered solution of potassium bromide, one drachm every four hours.

29th.—More aphasic; has an acne-eruption over face, probably due to potassium bromide.

Feb. 1.—Examination with ophthalmoscope shows

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choked optic disk on both sides; dynamometer shows left hand 30, and right hand 26. No exact diagnosis was made either by Dr. Amidon or by myself as to the character of the lesion presumed to exist; but we agreed that an explorative operation would be proper, in the hope of discovering a detached splinter of bone from inner table, a chronic abscess, or some other morbid condition admitting of relief by mechanical means.

6th.—Ether: *Operation* by Dr. Sands. The scalp being shaved, an incision was made on the left side of the head, about two inches above the ear, in a direction parallel to the zygoma; the incision was about two and one-half inches long. The largest trephine was applied nearly opposite the Rolandic line, and a button of bone removed, about one-fourth of an inch thick. Nothing was found, excepting that the dura matter was apparently thickened. The incision was extended for about one inch in a direction downward and outward, and the trephine aperture enlarged by means of gouge-forceps. Pulsation of dura absent; no fluctuation could be felt. A large hypodermic needle was thrust through the dura, in three different places, to the depth of an inch, but nothing withdrawn. In making two of the punctures, however, the needle met with considerable resistance, and the idea of a tumor was suggested. When all bleeding had stopped, wound was closed with fine catgut sutures, except at upper part, which was left open; iodoform dressing.

9th.—Patient speaks very indistinctly, and not loud enough to be heard at any distance; was reported as being delirious last night; apparently more aphasic than before operation.

10th.—Less aphasic.

11th.—Patient delirious at times. P. M., patient very noisy, and disturbs the ward. Magendie's solution, ten minims.

12th.—Patient had to be tied in bed on account of delirium. 3.30 P. M., wound dressed under spray, and found to be perfectly clean; union had taken place throughout; redressed with carbolized oil, 1–12.

13th.—Slept tolerably well last night. This morning is very delirious. Magendie's solution, ten minims, administered hypodermically.

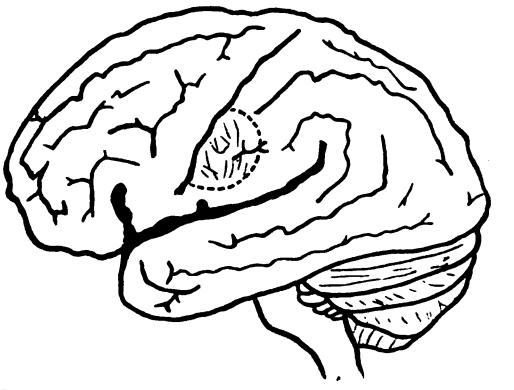
14th.—Patient this morning was cyanotic; respiration 7; pulse 120, and strong; pupils contracted and not responsive to light. Ordered atropine sulph., gr. $\frac{1}{125}$. After taking one dose, respiration 16; took two more doses before 12 M. After this time respiration 4; 2 P.M., respiration 5; pulse 140. At 11 P.M. died. Temperature after operation did not exceed 99° until the day before death, when it suddenly rose to 103°.

Report of *autopsy* by Dr. Delafield. Body fat.

"Head: A wound upon the left side of head, which has united, though not firmly, throughout. The wound runs from about two inches above the ear forward, parallel with the zygoma. Beneath this the bone has been removed. The wound in the bone is in the left parietal bone near its lower edge. The upper margin of the squamous portion of the temporal bone has been cut through. The opening through the bone is about one and one-half inch long, three-fourths of an inch broad; the edges are clean cut; the space thus left between the scalp and the dura is filled with some reddish, partially organized clot, and there is a very little pus at its edges, and in the upper fibres of the temporal muscle. The dura beneath is adherent to the pia.

"Brain: The portion of dura adherent and just under the wound, lies over the middle of the posterior central convolution, and extends a little posterior to it. The fissure of Rolando is not touched by it, but lies a few lines in front. There seems to be no meningitis. Just beneath adherent dura, in posterior central convolution, and convolution just behind it, is a gummy tumor about one inch in diameter.

Fig. 1.



Lateral view of brain, showing the position of the tumor.

"Heart, liver, spleen, lungs, kidney, and stomach are normal.

"Fallopian tube of left side terminates in a cyst containing a fœtus."

Fig. 2.

Transverse vertical section of the left cerebral hemisphere, showing the relation of the tumor to the trephine operation.

On reviewing this interesting case in the light of the post-mortem revelations, which seem to indicate a syphilitic origin of the cerebral tumor, it is

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certainly a subject of regret that the true nature of the disease escaped observation during life, as possibly it might have been controlled by specific treatment. But neither Dr. Amidon nor myself was able to obtain a syphilitic history, or to discover any existing specific lesion. Certainly the symptoms were very misleading. No convulsive seizure or other sign of cerebral trouble preceded the injury to the head, which was inflicted directly over the psycho-motor centres, and which was followed, after the lapse of a fortnight, by epileptiform attacks in which the convulsive movements were strictly limited to the upper extremity on the side of the body opposite to that where the blow was received. Assuming the morbid growth, however, to have been syphilitic, it must be a matter of conjecture whether the injury acted as an exciting cause, and determined its development, or whether the causative relation was the reverse, the injury having been due to a fall which occurred when the first epileptic fit was occasioned by the already existing gummy tumor. The case is instructive as demonstrating the value of cerebral localization in determining where the trephine should be applied. At the time of the operation the patient suffered from aphasia, impairment of vision, facial paralysis, and partial paralysis of the tongue, as well as from paresis of the right upper extremity. But as the affection of the upper limb was observed some time before the other nervous disturbances occurred, it was believed that these latter symptoms were due to secondary changes, perhaps to pressure or œdema, and that the primary cause would probably be found in the centre governing the movements of this part of the body. The post-mortem examination verified the accuracy of this conclusion, and the accompanying drawing furnished by the pathologist, Prof. Delafield, shows that the tumor occupied the centre referred to, and that it lay directly beneath the opening made by the trephine. Finally, although the autopsy disclosed no evidence of cerebral inflammation excited by the operation, the active delirium which set in toward the close of life may possibly have resulted from encephalitis; and it seems certain that death, although inevitable, was hastened by the undue effects of a dose of morphine administered with the object of relieving this distressing symptom.[1]

PRELIMINARY REPORT ON THE VENOMS OF SERPENTS.

BY S. WEIR MITCHELL, M.D., AND EDWARD T. REICHERT, M.D.,
OF PHILADELPHIA.

(*Read before the National Academy of Science, April 18, 1883.*)

THE present report represents a part only of an elaborate study of the poisons of all our own genera of serpents, and it is hoped may include a number of foreign genera. Our researches have of late been rewarded by so remarkable a discovery in toxicology that it has been thought well to announce it here rather than to await their completion. We have therefore selected from our notes such material as seems to us of interest from its novelty.

Physical Characters.—The venoms which we have obtained in a fresh state from the rattlesnake, moccasin, and copper-head, do not differ in general appearances, and are all in the form of a slightly turbid, yellowish fluid (occasionally colorless), and varying more or less in the degree of viscidity. They have no odor, and the reaction is invariably acid.

All the venoms, whether in their dried or their natural state, are soluble in water at ordinary temperatures, save for a slight cloudiness which but slowly settles. In the dry cobra venom sent us from India, by Mr. Vincent Richards, of Calcutta, there is also a little indissoluble matter, which occurs in larger flakes, and may be due to the mode of drying the poison.

When dried they resemble ordinary egg-albumen, and when thus prepared in small quantities in a porcelain capsule, innumerable radiating lines of fracture occur which break the mass into long, needle-like pieces, closely resembling acicular crystals; indeed, the resemblance is so striking that the uninitiated are frequently deceived as to the true physical condition of the venom. When larger quantities of venom are dried, these needle-like pieces are apt to be broken up by numerous cross-fractures.

In drying, venom loses a large proportion of its weight. Unfortunately, we have not had at our disposal any fresh cobra venom, nor have we as yet made any estimate of the solid constituents of the venom of the copper-head, but in our examination of the venoms of the rattlesnake and moccasin, we found a loss of nearly seventy-five per cent.

Aqueous solutions still preserve the acid reaction, and, apparently, all the properties of the fresh venom, excepting that the intensity of the poison is somewhat diminished.

These venoms, or their solutions, can be subjected to the boiling temperature of water (except the venom of the *Crotalus adamanteus*) without a complete destruction of their poisonous power, but with a noticeable alteration of their physiological properties. In the case of the *Crotalus adamanteus*, or the *diamond-back rattlesnake*, the toxicity of the venom is destroyed at a temperature below 80° C. (176° F.). As yet we have not had the opportunity of studying the venom from the *Crotalus durissus*, or other species of rattlesnakes, but one of us (Mitchell) determined years ago that the poisoning power of the venom of the *durissus* is not destroyed at a boiling temperature. It certainly is a very curious fact that the venom of the *adamanteus* is so different from other venoms, in being destroyed at so low a temperature, and our knowledge at present is not such as to offer any satisfactory explanation.

The external symptoms caused in animals by these several venoms—cobra, rattlesnake, moccasin, or copper-head—do not differ radically, save in degree. In all alike there is some primary heart disturbance, temporarily lowered blood-pressure, fatal enfeeblement of the respiratory centres, and local

[1] For the discussion elicited by this paper see page 480.

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effusion of blood with lessening or loss of its power to clot. These latter symptoms are best seen when the animal survives for some hours or a day, and then also is noticeable the breaking-down of the capillaries and the tendency to local putrescence and gangrene.

There are, however, certain symptoms which make it probable that, as our studies already indicate, we shall be enabled, after further investigation, to point out certain differences which may make it possible to discriminate any one form of poisoning from the others. Beyond a doubt, cobra venom is the most intense in its poisonous power, the venom of the copper-head next, then the moccasin and rattlesnake. Our investigations in this line are as yet far from complete, and we accordingly do not assert these facts as being final or at all conclusive.

The statement of Gautier, of Paris, that he had found an alkaloid in cobra poison resembling a ptomaine, has not received any support from what we have done in the chemistry of venoms; nor has Prof. Wolcott Gibbs been, so far, any more fortunate in finding an alkaloid in the *Crotalus* poison with which we supplied him. Our work has however resulted in the isolation of three distinct proteid bodies, of which two are soluble in distilled water, and one is not. Of the former two, one is incoagulable at a temperature of 100° C. It may be obtained by boiling venom, which throws down or destroys all the other proteids, and then filtering, or by dialysis.

The fact that this proteid remains uncoagulated by boiling and will dialyze, renders it certain that it belongs to a peculiar class of bodies which are ordinarily the result of peptic or tryptic digestion, and are known as peptones. In order to determine more definitely its character we prepared a solution of *moccasin* venom by the first process, and subjected it to a careful series of tests, designed to determine more exactly its place in the family of proteids, and with these results:

(1) Readily dialyzable.
(2) Not coagulated at a temperature of 100° C.
(3) Reaction with the xantho-proteic test (nitric acid and ammonia).
(4) Reaction with Millon's reagent (mercuric nitrate).
(5) No precipitate with weak or strong nitric acid.
(6) No precipitate with CO_2.
(7) No precipitate with ferric chloride.
(8) No precipitate with cupric sulphate.
(9) Precipitated by mercuric chloride.
(10) Precipitated by absolute alcohol.
(11) Gives a faint reddish tinge with a strong solution of potassium hydrate, and a trace of cupric sulphate.
(12) Not precipitated by strong acetic acid (glacial).
(13) Precipitated by very dilute acetic acid, precipitate being redissolved by further addition of acid.
(14) Full reaction with Adamkiewicz's test for peptones.[1]
(15) Precipitated by adding a large quantity of sodium chloride, the precipitate being redissolved on the addition of a large quantity of glacial acetic acid.
(16) Precipitated by mercuric nitrate.
(17) Precipitated by absolute alcohol, precipitate being apparently redissolved on the addition of water.
(18) Precipitated by saturation with potassium hydrate, precipitate being redissolved by the addition of nitric acid, with the formation of a decidedly yellow solution (xantho-proteic) which becomes decolorized by addition of acid.
(19) Precipitated by potassium ferrocyanide in the presence of weak acetic acid.

In a critical examination of these reactions it will be observed that while the peptone in question answers to these tests in such a positive manner as to place the matter of its nature beyond doubt, there are certain reactions which are so novel as to give this body characteristics which will distinguish it from all others of its class. These peculiarities are to be found in Nos. 13, 15, and 18. We are not aware that there is any other peptone giving such reactions by these tests.

But what is much stranger is that the peptone we have discovered is the only one as yet known to constitute a portion of a secretion, or to originate within the living body in any way except as a product of the digestion of proteids.

Some of the solution of this proteid being allowed to dry at a temperature somewhat below 100° C., it was afterwards found impossible to completely dissolve it in distilled water, the mixture remaining full of coagula, which appear to be wholly insoluble. When the coagula are filtered off, it is found that the filtrate gives all the reactions as before, although the poison in it, of which we will make further mention, appears to have entirely lost its power; nor were we able to demonstrate the existence of any toxicity in the coagula. We, therefore, do not know whether after the boiling of *moccasin* venom there remain two proteids in solution or one, but the fact of the complete loss of toxic power, under the circumstances just described, indicates that the two proteids formed in the last instance result from the breaking up of the original peptone. It seems strange, however, that, if the original body be broken up, the peptone which still remains in solution should retain the chemical peculiarities of the original substance, and answer to all the tests as we have carefully determined. The dialyzed peptone from the *Crotalus*, when dried at 40° C., entirely redissolved upon the addition of distilled water, and is poisonous, and also answers to all the above tests.

The second proteid separated by us from the original venom solutions is quite as interesting as the peptone.

We have already alluded to the fact of the occurence of a precipitate when fresh venom or its aqueous solution is allowed to stand for some hours undisturbed. The appearance of this precipitate gives one the impression of its being an albuminous body, and this only seems the more probable since the precipitate is entirely dissolved by the addition of a small amount of sodium chloride, very weak acids, or alkalies. But in order to determine more fully the nature of this substance, we prepared an

[1] As this test is not to be found in the ordinary text-books on physiology or physiological chemistry, we will state that the test consists in first adding a little sodium chloride to the suspected mixture, then some strong acid acetic, followed by acid sulphuric. This gives a lake color turning to violet, and the top of the solution has an opalescent olive tinge.

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aqueous solution of *Crotalus* venom and allowed it to stand for twenty-four hours. The supernatant liquid was decanted without disturbing the precipitate, which was then repeatedly washed with distilled water until the decanted liquid gave no reaction for albuminoids and chlorides. The precipitate thus prepared, and which, of course, is wholly insoluble in distilled water, gave the following reactions:

(1) Dissolving by the addition of a small amount of sodium chloride.
(2) *Partially* precipitated from weak solutions of sodium chloride by addition of sodium chloride to saturation.
(3) Soluble in weak solutions of magnesium sulphate, but apparently *entirely* precipitated by addition of the salt to saturation.
(4) Precipitate soluble in weak acids, and again precipitated by addition of strong nitric acid.
(5) Gave proteid reaction with xantho-proteic test.
(6) Gave proteid reaction with Millon's reagent.
(7) Coagulated in weak neutral saline solutions at a temperature of about 68.5° C.

The precipitate obtained by the addition of magnesium sulphate (3) is flaky in character, contrasting with the fine precipitate deposited by saturation with the sodium chloride, and was much more abundant.

These reactions indicate without doubt that the precipitate is a proteid belonging to the *globulins*, and that it most resembles *paraglobulin*.

We have also obtained this substance during the process of the dialytic separation of the peptone, when the globulin precipitates within the dialyzer, and it may be separated by filtration or decantation and washings. The globulin principle obtained from *moccasin* venom differs from that obtained from the *Crotalus* in that (1) by boiling it is entirely dissolved in the water, instead of being coagulated; (2) that it requires much stronger alkaline and acid solutions to dissolve it.

After the extraction of the *peptone* and *globulin* principles, there still remains in solution a third body, which becomes turbid at a temperature of about 65.5° C, and coagulates a few degrees higher, and which gives reaction with the xantho-proteic and Millon's tests for proteids, and is precipitated with weak alkalies or acids. We have not as yet been able to isolate this proteid free from contamination with the globulin and peptone principles, but judging from the fact of its perfect solubility in water, the point of coagulation and behavior with dilute alkalies and acids, it is an *albumen*. As ether does not precipitate it, it is more akin to *serum-albumen* than to egg-albumen. We are now endeavoring to obtain this principle pure by dialyzing the peptone off, and afterwards separating the globulin principle from it by filtration, when we hope to be able to study its properties with more definiteness.

The whole subject of the chemistry of proteids is as yet in such an uncertain and extremely unsatisfactory condition that the best we can do now is simply to indicate to which general class of proteids these several bodies belong, and in order to distinguish them, we propose therefore for the present to call them *venom-peptone*, *venom-globulin*, and *venom-albumen*.

Our study of the physiological properties of this *venom-peptone*, though incomplete, clearly shows that while it is poisonous, it is far from possessing all the poisonous features of venom. It is much slower in its action than venom, and the local effects produced by it are of an œdematous character, contrasting strongly with the action of the pure venom, which almost immediately causes great darkening of the tissues, due to infiltration of blood which is wholly or at least partially incoagulable. When the venom-peptone is injected into the breast muscles of a pigeon, if the animal dies within an hour or so, there is scarcely any appreciable local effect, but if the dose has been smaller, the first local effect observed is a considerable œdematous swelling in the form of an abruptly protruding lump, but without any dark discoloration. At the end of twenty-four or thirty-six hours some slight discoloration is at times observed beneath the skin, and after forty-eight hours there is a discharge from the swelling of a putrescent, muddy-looking serum. If the muscles of the side are now cut into, they will be found to be considerably congested, to be marked with greenish streaks, and to give off horrible putrefactive odors. In a pigeon, killed before the end of twenty-four hours, we found beneath the œdematous swelling a cavity about an inch in diameter, which was full of broken-down tissue, having a muddy, gangrenous appearance, and a putrefactive odor, while the surrounding muscular tissues were normal in appearance. Judging from the fact that the venom-peptone does not give rise to any darkening of the muscular tissues within a short while after injection, and, indeed, as it seems probable, not until putrefaction has set in, it seems to us likely that the darkening and congestion which ultimately occur, are to be regarded as mere secondary effects, and due to the putrefactive changes induced by the poison. The remarkable power possessed by this poison to cause putrefaction in the living tissue in so short a time is astonishing, and will exact a long and patient investigation.

These differences between the effects of the *venom-peptone* and pure venom lead us to believe that the former is not the only poisonous principle in venom, and that it is the least important in point of activity. We have been so fortunate as to find a second poison factor, and one of intense activity, in *venom-globulin*. This poison is of such virulency that one-twentieth of a grain is sufficient to kill a strong pigeon in a little over two hours, and to give rise within a few minutes after injection to the production of enormous infiltration of blood into the neighboring tissues.

In two experiments made on rabbits to determine the actions of these two principles on the blood-pressure, we found that the *venom-peptone* caused an immediate fall of blood-pressure to about one-half of the normal, after which convulsions came on accompanied by a rise of pressure to above the normal. The injection of several more doses did not affect the pressure as did the first dose—these results corresponding to what we have

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observed in experiments with the fresh venom. The *venom-globulin* poison seems to be devoid of any action on the blood-pressure, except to make more prominent the so-called vaso-motor curves. We also noticed in these experiments that the *venom-globulin* gave rise to bloody extravasation in the peritoneum, such as is observed in venom poisoning, whilst the *venom-peptone* did not.

As yet we have not satisfied ourselves as to whether *venom-albumen* is a third poisonous factor, since we have been unable to isolate it in a condition in which we were satisfied as to its absolute purity, on account of our having been baffled so far in completely getting rid of the venom-globulin. The results, however, obtained from our very incomplete study of the physiological properties of the *peptone* and *globulin* principles indicate that they fully represent all the poisonous qualities of venom, the *venom-globulin* being decidedly the more poisonous of the two, and, undoubtedly, the essential poisonous element.

Up to this date, all observers have regarded the venoms as representing a single poison. We have been able to show that the venom of the *moccasin* and *C. adamanteus* contains three proteids—one analogous to peptones, and a putrefacient; one akin to globulins, and a much more fatal poison, probably attacking the respiratory centres, and destroying the power of the blood to clot; and a third resembling the albumens, and probable innocent.

Finally, we have learned that the poisons of the rattlesnake (*C. adamanteus*), copper-head (*Agkistrodon contortrix*), and moccasin (*Toxicophis piscivorus*) are capable of being destroyed by bromine, iodine, bromohydric acid (thirty-three per cent.), sodium hydrate, potassium hydrate, and, as Lacerda has shown, by potassium permanganate.

The separation of the two poisons necessitates, of course, a long and elaborate series of researches, the results of which we hope to report in future.

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MEDICAL PROGRESS.

DANGER OF PUNCTURING OVARIAN CYSTS.—PROF. ZWEIFEL relates a case in which dangerous symptoms, indicating acute peritonitis from the passage of material from a cyst of the left ovary, followed an exploratory puncture of the second largest needle of Potain's aspirator. The symptoms—pain, vomiting, and collapse—were so marked that laparotomy was immediately performed, and a large cyst removed. He found that a portion of the contents, about the size of a walnut, had escaped into the peritoneal cavity. The patient had no bad symptoms afterward. Though this was Zweifel's fifty-fifth laparotomy, an exploratory puncture in his hands has heretofore had no evil results. He thinks, however, that the puncture should not be made, unless ovariotomy can be immediately performed if necessary.—*Centralbl. f. Gynäkol.*, February 17, 1883.

TREPHINING IN INJURY OF THE HEAD.—MR. MESSITER read a paper, before the Midland Medical Society, on trephining in injuries of the skull, giving details of five cases in which this operation had been performed at the Guest Hospital, Dudley. He thinks that trephining early in many cases of cranial injury was, with the aid of Listerism, of the utmost importance.—*British Med. Journ.*, April 7, 1883.

DANGERS OF IODOFORM DRESSINGS.—Iodoform is an excellent dressing for sluggish and fungous sores, but may be dangerous if used on large, recent wounds. König records thirty-two cases of intoxication from it, with nine deaths.—*Bull. Gén. de Thérap.*, March 30, 1883.

NEPHRECTOMY.—MR. JOHN LLOYD showed, for Mr. West, before the Midland Medical Society, a kidney which the latter had removed through a lumbar incision. The patient, a boy, æt. 15, received an abdominal injury in November last, which was followed by hæmaturia, development of a lumbar tumor, pus in the urine, and pyrexia. In December, the aspirator drew off fifty-five ounces of purulent fluid. This was repeated a week later, and followed up by a lumbar incision and the insertion of a drainage-tube. Eighty ounces of purulent ammoniacal fluid passed daily through the tube. As emaciation was rapidly progressing, nephrectomy was performed. The kidney was eight inches long, four broad, three thick, and weighed ℥xvj.—*British Medical Journal*, April 7, 1883.

UMBILICAL CANCER.—M. DEPRÉS reported to the Société de Chirurgie, Paris, the removal of a cancerous tumor of the umbilicus from a man æt. 75. While dissecting it out he found that it penetrated the peritoneal cavity at the umbilical ring, and that it was necessary to open that cavity in order to completely extirpate it. He included a portion of the epiploon in the ring, and fixed it there by sutures, in order to facilitate union. The wound was dressed without antiseptic precautions, and union took place by first intention in almost the whole extent of the wound. M. Deprés is not an adherent to Listerism, and thinks that the peritoneal cavity may be safely operated upon without such antiseptic precautions.—*L'Union Méd.*, March 29, 1883.

PARENCHYMATOUS INJECTION OF CARBOLIC ACID.—Bertels has used injections of carbolic acid in a case of cynanche sublingualis with success. SKIBNEWSKI (*Vratsch*, 1883, No. 1) has used the same treatment in two very bad cases, with excellent result. In the first case the disease had been progressing for some time, until the throat and mouth were so much affected as to seriously interfere with swallowing and speech. This was also the case, to a greater extent, in the second. In the first case thirteen injections, two per cent., were made in five days, and grs. xij of the acid used. The relief was very quick in one night, and in ten days the patient was discharged. The result in the second case was still more satisfactory. The disease had lasted four days, the tumor extended down to the clavicle, swallowing and speaking impossible, great cyanosis, tongue immovable. The injections were made in the afternoon, and the next morning the tumor was so much reduced that swallowing and speaking could be performed.—*Centralbl. f. Chirurgie*, No. 13, 1883.

TRANSPLANTATION OF OVARIAN CYSTS.—DR. EDWARD MALINS describes five cases in which ovarian cysts were transplanted to a new situation. In one the separation was not absolutely complete at the time of operation, though the transplantation was advanced. In three others the union from the place of original development was entirely severed, and a connection established with fresh structures. The process by which this was accomplished created much disturb-

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ance for a time, but the cysts afterward appear to have settled down with a singular accommodation on the part of their surroundings. Of the five cases recorded, four were operated upon and recovered. In the fifth case the extent of the chronic pelvic peritonitis, due to rupture of a suppurating cyst, showed that an operation would have been useless.—*Lancet*, April 7, 1883.

Etiology of Tuberculosis.—MM. Raymond and Arthaud, in closing an elaborate paper in the *Archives Générales de Médecine*, April, 1883, give the following *résumé* of their experiments: "All the experiments of inoculation with non-tuberculous substances have absolutely given us nothing, whilst analogous trials with true tubercle have constantly produced general tuberculosis, a result which, as we think, should be attributed to the precautions which we have taken, precautions bearing on the local traumatism and on the nature of the tuberculous products, taken as fresh as possible. We have been careful to place the animals under the best hygienic conditions, and under the strictest surveillance. Experience has proved that we can render animals tuberculous almost at will; for example, the monkey. To attain this result, it is sufficient that animals should be badly nourished, subject to cold, etc. The importance of this remark should not, however, be exaggerated, for even in monkeys, as the experiments of Dieulafoy and Krishaber show, the inoculation of putrid or inert material never sets up tuberculosis if the animals are well cared for."

Preservation of Urine for Microscopic Examination.—According to Dr. Curtis, the addition of about grs. iv of chloral hydrate to ʒiij of urine will preserve it for a month, if kept at ordinary temperatures. —*L'Independente*, March 25, 1883.

Quinine in Ear Disease.—Dr. Voltolini (*Monatsschr. f. Ohrenheilk.*) says: The efficacy of quinine in these diseases does not need further demonstration; but the question now is, not so much as to the use, as its abuse in therapeutics. He warns us against the enormous doses that are frequently prescribed, which, whether given at once or at intervals, are likely to provoke grave aural and ocular troubles. The troubles which these very large doses produce on the ear, and which may result in deafness, consist anatomically in hyperæmia, principally of the labyrinth.—*Ann. des Mal. de L'Oreille, du Larynx*, March, 1883.

Cyst of the Pancreas; Operation.—Prof. Gussenbauer reports the case of a man, æt. 40, who, eight weeks previously, after a hearty meal was taken with an attack of gastricismus. He went to Prof. Pibrain's clinic, where physical examination showed a rapidly increasing tumor situated below the stomach, and which gave distinct fluctuation. Gastric and intestinal disorders supervened, with considerable emaciation. Prof. Gussenbauer, after examination, diagnosticated a retro-peritoneal tumor, though he could not define its nature; but a solid tumor being thrown out on account of the clear fluctuation, a cancerous growth on account of the constricted base, and an abscess on account of the absence of inflammatory symptoms, he was inclined to think that it was a cystic growth. On studying the literature of the subject, he found that only cysts of the pancreas and hematoma of the suprarenal capsules had been found in this situation, and with these symptoms. He also concluded that the cyst was attached to the peritoneum. The operation for its removal was performed on December 21, 1882. After opening the abdomen and reaching the cyst, it was punctured by a trocar and the contents, about four pints, removed. Chemical and microscopic examination showed that the fluid was composed of altered blood. The recovery took place without any bad symptoms, except that the man has a fistulous opening about two inches long.—*Wiener Medizin. Presse*, April 1, 1883.

Climacteric Dyspepsia.—Mr. Prangley read a paper before the Norwich Medico-Chirurgical Society on a form of dyspepsia which he termed climacteric. It occurs in women between the ages of forty and fifty. The symptoms are those of great nervousness, with pain on the top of the head, noises in the ears, hot flushes and chills, with curious sensations in the abdomen; the dyspeptic symptoms are those of precordial distress, palpitation, constipation, coated tongue, and foul breath. The treatment consists in the administration of bismuth, bicarbonate of potash, and ammonia, adding valerian if the nervous symptoms predominate, followed by quinine, strychnia, and dilute nitro-muriatic acid.—*British Med. Journ.*, April 7, 1883.

Vertebral Caries and Perforation of the Œsophagus.—Penzolat records three cases of this rare affection, in one of which the complication was recognized during life. In the first, during life the signs of pulmonary and intestinal tuberculosis were recognized. The autopsy showed caries of the fifth and sixth cervical vertebræ, with perforation of the œsophagus at the level of the fifth. Second. Compression of the cord following vertebral caries, with symptoms of paralysis toward the end of life. The autopsy showed caries of the first four dorsal vertebræ, with an opening into the œsophagus almost one-half inch long. Third. Male, æt. 53, phthisical. Caries of the first dorsal vertebræ. No symptoms of compression. The opening in the œsophagus was diagnosticated by the expulsion of a large quantity of muco-sanguinolent material, strongly contrasted with the rare purulent expectoration of the preceding days. Violent cervical pain; deglutition impossible; tumefaction of the posterior wall of the pharynx. Autopsy showed caries of the first four dorsal vertebræ, with a perforation at the situation of the first.—*L'Union Méd.*, April 3, 1883.

Hepatic and Splenic Cough.—M. Trastour calls attention to the fact that a cough due to hepatic or splenic affection may lead, on account of the concurrence of symptoms simulating phthisis, to a diagnosis of the latter disease. In eight cases with bad cough, two occurred in malarial subjects; the others, on examination, showed engorgement of the liver. The cough disappears when purgatives, saline cathartics, mineral waters, quinine, etc., are exhibited.—*Revue de Méd.*, January, 1883.

Subpectoral Abscess Opening into the Lung.—Maria G., æt. thirty-eight, entered L'Hotel-Dieu, service of M. Lacombe, on May 21, 1882. No previous disease, no syphilitic history, no previous thoracic trouble. After prolonged chilliness, she was taken with pain in the whole upper right extremity, with chilly sensations, fever, anorexia, etc. The febrile state resulted in the formation of several abscesses, first in the neck, then in the axillary region and the anterior thoracic wall. The neck was tumefied, and on the inside there was a purulent collection, which opened spontaneously in about three weeks. The inflammation caused considerable œdema of the whole limb, which persisted till death. After the abscess opened, the fever abated and the appetite returned. Then other abscesses appeared: one at the internal anterior part of the axilla, another in front of the middle sternal region. Up to this time there had been no cough. Some days after the appearance of the axillary abscess, at this time about the size of a hen's egg, an incessant cough came on; at the same time there com-

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menced an abundant expectoration, which soon became purulent. The two abscesses diminished as soon as the cough appeared. On entering the hospital she was very feeble and emaciated. Of the two suppurating centres already mentioned, the external is slightly projecting, its base indurated; the internal is sunken. On pressing the skin at this point a sinuous pouch is recognized. This pressure produces a gurgling sound and a hydroaëric bruit. From this point upward toward the clavicle there is subcutaneous emphysema. When the patient coughs the pouch swells out, and the gurgling sound is recognized. There is slight pain along the line joining the two abscesses. Heart and lungs sound. No diarrhœa and no fever.

Subpectoral abscess opening into the lung was diagnosticated. There being no signs of tuberculosis, the idea of a pulmonary cavity opening outward was eliminated. The only stethoscopic signs are some subcrepitant râles at the base of the right lung. There is a constant cough, the sputa being very purulent. Next day the axillary abscess opened, and the expectoration was considerably diminished. On May 27th, the opening being insufficient, M. Peyrot made two large, deep incisions, and a third below the clavicle. Two drainage-tubes were passed between the abscess and the upper incision, and the wounds were dressed antiseptically. Though the local state remained satisfactory, the patient grew worse and died May 31st.

Autopsy twenty-four hours after death. There was a large focus of suppuration below the right pectoralis major muscle, triangular, reaching from the sternum to the axilla, from the nipple to the clavicle, which has destroyed the greater part of the pectoralis major muscle and the aponeuroses of that region. The intercostal muscles were denuded and bathed in pus. At the side of the clavicle the abscess reached to the subclavicular vessels. Behind the remains of the pectoralis minor, in the third intercostal space, was a perforation about the size of a ten-cent piece. Seen through this perforation the lung appeared perfectly sound, being maintained at this level by pleuritic adhesions. There was no preëxisting lung cavity, and no bronchial ulceration. The pus was probably absorbed as by a sponge. The other organs were healthy.—*Le Progrès Méd.*, March 24, 1883.

NAPHTHALINE DRESSING.—DR. FISCHER recommends naphthaline as an antiseptic in direct applications, in the same manner as iodoform is used. Ulcers and cancers with fetid secretion rapidly take on a good appearance. It has been largely employed for filling the cavity after extirpation of the rectum, in cancer of the vagina and os, in large wounds with sinuses, in gangrene following fresh burns, amputations, etc. In grave erysipelas (according to Fischer) following articular resections, the wound should be completely filled with naphthaline; the erysipelas quickly disappears.—*Journ. de Méd. de Paris*, March 24, 1883, from *Gaz. Méd. de Strasbourg.*

GASTROSTOMY AT ST. BARTHOLOMEW'S HOSPITAL.—MR. HOWARD MARSH reports the following case: E. C., æt. 60, entered St. Bartholomew's Hospital on April 22, 1882. During the past five months he had suffered pain, with gradually increasing dysphagia, spasmodic cough, and profuse frothy mucous expectoration, occasionally streaked with blood. No abnormality in pharynx or neck. A medium-sized œsophageal bougie could not be passed beyond about the level of the sixth cervical vertebra, and a No. 6 catheter was stopped at this point. Instruments caused violent suffocative cough, and profuse expectoration. For a few weeks he improved on a fluid diet, but soon grew worse again, with rapid loss of flesh.

The preliminary step for gastrostomy was performed on July 22d, under the carbolic spray. The abdomen was opened by an incision three inches long, commencing two inches to the left of the median line, and two inches below the edge of the costal cartilages, and passing downward and outward. The middle of the anterior or upper surface of the stomach was stitched to the abdominal wall, and the wound dressed with carbolic gauze. He was fed after the operation with enemata of milk, milk and eggs, and beef-tea and brandy. Small hypodermatics of brandy were occasionally administered. On July 30th the stomach was opened with a tenotome, by an incision just large enough to admit an India-rubber tube of the size of a No. 10 catheter. No food was introduced, as he lived well enough on enemata and whatever fluids he could swallow. On August 18th a large-sized flexible tracheotomy-tube was introduced through the incision, but there was so much difficulty in passing food through it that the former methods of feeding were continued. The patient gradually sank, however, and died September 14th.

Necropsy.—At the lower margin of the opening into the stomach, and close beneath the skin, was a nodular mass of cancer, as large as a horse-chestnut. About half a pint of brown, purulent fluid lay encysted between the cardiac end of the stomach, the splenic flexure of the colon, the omentum, and the left leaflet of the diaphragm; there was no fluid in the peritoneal cavity, and no general peritonitis. The œsophagus was infiltrated with hard cancer from the cricoid cartilage downward for about seven inches; and below this were many nodules of cancer lying in its wall as far as its juncture with the stomach. The upper seven inches was a complete cancerous tube, the walls being half an inch thick. From the upper, back part of the tube sprang a flattened mass of cancer, which had pushed the œsophagus and trachea forward. The bodies of the second and third dorsal vertebræ were partly infiltrated by the cancer.—*British Med. Journ.*, March 31, 1883.

COPPER IN CANNED VEGETABLES.—M. GALLARD publishes in a brochure the report of the committee appointed to investigate this evil, composed of MM. Wurtz, Girard, Brouardel, Chatin, Rochard, and Gallard. 1. The green color, sought for by consumers, can be given to canned vegetables only by using the salts of copper, though nothing is thereby added to their alimentary properties. 2. The quantity of copper really necessary for this color is very small, and, if this is not exceeded, is not likely to prove detrimental to the health of the consumer. 3. But if by any means this small quantity is exceeded, serious troubles are likely to result; and on this account the committee deems it advisable that the use of copper in this manner be prohibited.—*Archives Gén de Méd.*, April, 1883.

RADIO-CARPAL RESECTION.—M. OLLIER has performed this operation twenty-two times. The chances of success, he thinks, are greater if it is performed early. After operating he dresses the wound with iodoform, with a modified Lister dressing. The results are variable; the solidity of the surfaces depends largely on the age of the patient; and from an orthopædic and functional view, he has noticed that the movements of flexion are easily recovered. Extension returns more slowly: It may return when the radial and ulnar epiphyses are restored. If relapses occur, M. Ollier believes that they are due to insufficient eradication of the diseased portion of bone. In all cases, he believes that it is an operation which will preserve a useful limb, and often prolong life.—*Progrès Méd.*, April 7, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, APRIL 28, 1883.

MIGRAINE AND ITS TREATMENT.

If repeated attacks of migraine, as indicated in our last issue, may set up pathological processes in the cerebral organs, this malady deserves careful consideration. To understand its nature, to compass its cure, and thus prevent the secondary changes, are, clearly, very necessary duties. Before we can form a proper therapeutical diagnosis, we must have a true conception of its character—a knowledge of the several elements which make up the morbid complexus. Migraine is commonly regarded as a neurosis—a functional nervous disorder—affecting the fifth nerve. Such a conception is necessarily partial. It is a neurosis, and something more. As a neuropathic disorder, its seat is not limited to the fifth nerve, for the stomachal derangement with which some cases open and others close, signifies derangement of the vagus. The nucleus of the fifth and that of the vagus lie in close juxtaposition and have intimate relations. The mechanism in the production of a seizure may consist in a primary affection of the fifth, the transference of the irritation to the nucleus of the pneumogastric, or in a primary implication of the terminals of the latter in the stomach, and the transmission of this impression to the nucleus of the former. There are then two forms: a trifacial, and a pneumogastric. There are, however, two conditions of the sympathetic which may accompany either of these forms: one, a condition of vaso-motor tetanus; the other, a condition of vaso-motor paresis. Eulenburg, indeed, regards sick-headache as a disorder of the sympathetic. In that form characterized by vaso-motor constriction, the face is pale, the pupil dilated; in the other form, the face is flushed, the pupil contracted. According to Féré, whom we have already quoted, those cases are most serious in their ultimate action on the brain in which the state of the vessels is that of contraction. Persistent seizures of either form of the malady must exercise a deleterious effect on the nutrition of the brain substance ultimately. Hence the importance of judicious treatment.

The management of any case, to be successful, must be concerned with the functional condition of the organs affected. Do the attacks begin with stomachal disorder? A systematic plan of diet, in which, as a rule, the starchy, saccharine, and fatty elements of the foods are either cut off, or modified, should be inaugurated at once. Usually, there are individual peculiarities—idiosyncrasies—which must be heeded. Beside the regulation of the diet, remedies to allay the irritability of the end organs of the pneumogastric, are necessary. The results are the more satisfactory if these remedies exert that therapeutical action, formerly known as nervine tonic. First in value is arsenic, of which two drops of Fowler's solution, three times a day, should be given continuously for several months or longer. For the same reasons, oxide of silver (one grain *ter die*) is a valuable remedy, with the limitation imposed by the danger of staining the skin. Fermentative changes with or without the presence of *sarcina*, acidity, the condition of lithæmia, etc., require the sulphites, creasote, the mineral acids, rarely alkalies, according to the special derangements and complications present.

When some modification of the fifth nerve is the initial change, remedies must be addressed to it. The general state, is, as a rule, that of depression. The subjects of this disorder are apt to be excitable or "nervous," and they tend to anæmia rather than plethora, hence the utility in many cases of phosphites and phosphates, of nux vomica or strychnine, especially when an atonic dyspepsia is present; and of such nervines, so-called, as guarana, paullinia, caffeine, ammonia, etc.

As the condition of the intra-cranial vessels may play so important a part in subsequent pathological processes, it is very necessary to relieve the functional derangements of the sympathetic. Do we have to deal with the tetanic state of the vessels? Then, the remedies most useful are nitro-glycerine by the stomach, nitrite of amyl by inhalation, bromide of potassium, etc. When this symptom is sudden in onset and violent, the inhalation of amyl nitrite will be most promptly efficacious. When the vascular spasm is thus relieved, the migraine gets better. When this state occurs more slowly, nitroglycerine is preferable. This remedy has valuable

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curative properties in those cases characterized by persistently high arterial tension, and hence it may be administered during the interval between the seizures as a prophylactic measure. Bromide of potassium is highly useful in the same group of cases. Full doses (half a drachm to a drachm) must be prescribed when the attempt is made to abort an impending attack—a result which may sometimes be attained. During the interval the bromide may be used to procure permanent results. The spoliative effect of this remedy may be lessened by the conjoint administration of iron, arsenic, phosphates, etc. We have known of cures effected by persistent but careful administration of the bromide of potassium.

The opposite state of the sympathetic system—paresis—must be remedied by agents acting in an opposed manner. In cases characterized by a flushed face, a bounding pulse, injected conjunctivæ, etc., the appropriate remedies are ergot, digitalis, chloride of barium, strychnine, picrotoxine, etc. An efficient combination consists of the extracts of ergot and nux vomica, with digitalis in pill, given mainly in the interval between the paroxysms. A capital remedy in this form of migraine, as Frommhold long ago demonstrated, is a mild galvanic current, applied to include the pneumogastric and cervical sympathetic. The applications should be both labile and stabile—the interruptions slow—and they should be made daily for several months.

Notwithstanding the persistency with which attacks of sick-headache re-appear, from month to month, and for many years, a hopeful view may be taken of the prognosis, if the patient will submit to the dietetic conditions, and carry out faithfully the medicinal treatment. In most cases, the best results are had from a combination of plans: by combining the diet system with the remedies for each form of nervous disturbance. Various hygienic regulations need to be enforced. Individuals with neuropathic tendencies should be subjected to all the influences of the best hygiene, and this includes not only the climatic and civic agencies, but all the factors in the personal equation.

THE MICROCOCCI OF CEREBRO-SPINAL MENINGITIS.

THE presence of micrococci in the ventricular fluid of meningitis succeeding pneumonia and wounds of the skull, was shown by Klebs and Eberth, and the former also found in the ventricular fluid of a case of acute suppurative meningitis, in a school-boy of sixteen, an enormous quantity of actively moving monads, together with numerous cells. LEYDEN (*Centralbl. für klin. Med.*, March 10th) has recently more closely studied a case of primary cerebro-spinal meningitis from this standpoint. In a case which terminated unfavorably under his observation, some of the inflammatory fluid was withdrawn through the pia mater of the lumbar portion of the spinal cord, and studied with a Hartnack immersion lens; in it were found a large number of micrococci together with some exudation cells. The cocci, were, for the most part, oval and arranged in pairs, though frequently, also, isolated, and in chains of two or three diplococci. All of these organisms presented a pretty active trembling, but not forward motion. They resemble closely the cocci of pneumonia and erysipelas, but were larger and more strikingly oval. In certain of the double forms one of the cocci was quite small, the other larger and thicker. The same organisms were also found in the tissue of the pia mater.

Leyden has no doubt that we have here to do with an organism pathogenetic of meningitis, and easily distinguishable from the ordinary decomposition bacteria, which, according to Klebs and Eberth, also appear in the cerebro-spinal fluid of meningitis late in the disease. These organisms described by Leyden, also differ from the micrococci of diphtheria and pyæmia, although in pyæmic meningitis after wounds and operations, precisely the same organisms are found as in the pus and blood of pyæmia. On the other hand, the organisms found by Eberth in the lungs and brain in cases of meningitis bear a close resemblance to those found by Klebs in the ventricular fluid, as well as in the lungs in certain cases of pneumonia.

While Leyden admits a great similarity between the micrococci of the fresh exudate of cerebro-spinal meningitis, and similar organisms of pneumonia, he considers it highly probable that they are distinct, and points out the following differences: 1. Those of meningitis are larger; 2. Their oval form is more strongly pronounced; and 3. They are thicker, with a tendency to fission. He considers that the differences between those of meningitis and pneumonia are equally as great as between those of pneumonia and erysipelas. On the other hand, the resemblance between these three forms is a very striking one. All three are oval cells united into diplo-, but occasionally into strepto-cocci, and differ essentially only in their size and more or less distinctly expressed oval form.

That in these three diseases we have to do with one and the same form of bacteria, which produces now one disease and again another, is not probable, but it is of interest to know that three diseases, which in their anatomical picture and their course show much agreement, are caused by a similar micro-parasite. Pathological anatomy has long since shown an analogy between pneumonia and meningitis with erysipelas. These agreements appear important enough to justify calling attention to the

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fact that erysipelas and pneumonia are not unfrequently associated with meningitis, while cerebro-spinal meningitis, even the epidemic form, is also occasionally accompanied by pneumonia.

PERINEPHRIC ABSCESS.

Perhaps the most distinguishing feature of the present time in the study of diseases is the substitution of exact for general knowledge, of precision for vagueness. In fact, it is by means of this process that differential diagnosis has become so much more reliable than heretofore.

Perinephritic, or, as Dr. John B. Roberts justly prefers to call it, perinephric abscess is a moderately common disorder, yet the study of its anatomical relations with the differing symptoms and physical signs, when it occupies this or that region about the kidney, has been scarcely attempted heretofore. It is, therefore, a valuable contribution to our exact knowledge of such abscesses that Dr. Roberts has made in a paper in the April number of the American Journal of the Medical Sciences. He arbitrarily divides the perinephric cellulo-fatty tissue into six regions, an upper, middle and lower, anteriorly and posteriorly, and then studies the anatomical relations in each region with the probable resultant symptoms of abscess in each situation. It is an attempt to clear up the obscurities which at present surround the subject. Its conclusions must be compared and corrected by subsequent experience.

Investigations of this kind are among the most valuable means of surgical progress, and as such we welcome the present study as a real acquisition.

THE CODE CONTROVERSY.

It was strongly urged at Albany when the New Code was first presented, that the only valuable expression of opinion is that which fully represents the true sentiment of the body uttering it, but the New Code supporters then refused to listen to the appeal of Dr. Squibb and others to postpone its consideration for a year, when the opinion of the profession concerning it could be ascertained (which, as the vote this year showed, would have prevented its enactment), or, indeed, to postpone the vote even for a day, but insisted upon its passage on the very same day upon which it first saw light. Such tactics are apt to provoke imitation on the part of those who have suffered from them, and who find in that fact their justification.

The advocates of the New Code in the New York Academy of Medicine are now themselves indignant at being exposed in their turn to the methods which they found so successful last year at Albany. A good cause has nothing to fear and everything to gain from the fullest discussion, and freest expression of opinion, and before a vote on so important a subject as the Code was taken last year at the State Society, or last week at the Academy of Medicine, due notice should have been previously given of the proposed action, so that every member could have fair warning to be present and poll his vote, and thus only the real expression of professional opinion on the subject could be obtained.

The general interest in the Code controversy does not seem to diminish. The Louisiana, Kentucky, and Alabama Medical Societies have again expressed, without a dissenting voice, their adherence to the National Code. The Alabama Society goes further, and urges upon the physicians of the State to give their patronage only to those journals, and to send their students only to those medical schools which are in sympathy with the National Code.

The Bellevue Hospital Medical College appreciates the spirit which is abroad, and does not intend that the sentiments of its faculty, in reference to this subject, shall be misunderstood, and it therefore states, at the head of its announcement for the ensuing year, that "The standard of medical ethics recognized by the College is embodied in the Code of Ethics of the American Medical Association."

As a further contribution to the history of the controversy, we may mention an ingenuous proposition suggested last week by the New York *Medical Record*, that a "lasting solution of the question would be arrived at if the [American Medical] Association itself would rescind all formal codes, and simply urge the profession to establish such ethical regulations as local circumstances might render most expedient."

ANALYSIS OF QUININE PILLS.

Our enterprising contemporary *The Pharmacist and Chemist*, of Chicago, has supplemented the investigations of The Medical News into the composition of quinine pills, by a series of analyses made by Mr. C. Lewis Diehl, of Louisville, one of the most distinguished pharmaceutical chemists in the country, and in its issue for the current month it gives the results with the names of the manufacturers, and the shortage found in the product of each.

The samples of two-grain quinine pills were purchased in unbroken packages in Chicago, in January last, and hence were manufactured probably before December 16th, when the results obtained by our Commission were published. The method of analysis pursued by Mr. Diehl was practically the same as was used by The News Commission, but the results in each case gave a greater deficiency of quinine than was found in our samples, and they also showed the existence of foreign alkaloids, none of which,

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according to the official tests of the *United States Pharmacopœia*, were found by our Commission.

The results, as given by *The Pharmacist and Chemist*, are as follows:

Number corresponding to analysis.	Amount in grains of quinine in each two-grain pill.	Amount in grains of foreign alkaloids.
3	1.772	0.240
1	1.722	0.244
2	1.634	0.316
10	1.618	0.304
4	1.616	0.310
6	1.548	0.388
7	1.546	0.304
5	1.512	0.266
8	1.432	0.606
9	0.940	0.690

The importance of the results of these analyses of THE MEDICAL NEWS, and of *The Pharmacist and Chemist*, can scarcely be overestimated, and they show that if the leading manufacturing pharmacists desire to retain the confidence of the profession and of the public, they must revise their working formulæ, and by constant analysis, by competent chemists, of their finished products, be able to guarantee the accuracy of the composition of the preparations which are issued from their establishments.

THE QUALIFICATIONS OF A HEALTH COMMISSIONER.

THE term of office of the present Health Commissioner of the City of New York will expire shortly, and several candidates for the position are in the field. We have received a pamphlet of sixteen pages, containing a letter addressed to the Mayor of New York by one of the applicants, who has been for several years connected with the Bureau of Vital Statistics of New York city, and his selection of testimonials and of evidence that he is a suitable person for this important position is a matter of some interest.

The first testimonial which he offers is from a Professor in the New York Medical College to the effect that the applicant had studied Spanish under his direction. The second is that he was an acting assistant surgeon in the army in 1864–65. The third is from the surgeon in charge of the Army Hospital at which he served, testifying to his professional and social excellence, and gentlemanly traits. Next he tells us that he was presented with a gold watch and pencil by one hundred and eight wounded and disabled soldiers, when he left the hospital. The resolutions accompanying this present are not given—and we miss also his certificate of regular attendance at Sunday-school, and of successful vaccination, but no doubt these could be produced if necessary.

Twelve of the sixteen pages are occupied with a list of names of prominent physicians and business firms in New York City. They do not certify to anything or make any request, but we presume that they are intended to show the extent of the candidate's visiting list.

This mode of applying for an office, by means of a printed list of testimonials and sketch of the candidate's history, has been heretofore little used in this country although it is very common abroad. It is a very convenient method, especially for those who decide as to the claims of rival candidates, such as mayors, boards of trustees, etc., all of whom will no doubt strongly prefer this plan to that of personal interviews with the candidate's friends. In the present case, the convenience of such a pamphlet to Mayor Edson and John Kelly can hardly be overestimated.

The present Health Commissioner of New York, who has filled the office for a number of years with much success is Prof. Chandler, of Columbia College. He is a candidate for reappointment, but probably very few people know this except Mayor Edson, as he has not issued any list of testimonials.

The office of Health Commissioner of the City of New York is the most important position connected with public hygiene in this country, and should be filled by the best man who can be found. Before seeing the new applicant's book of testimonials, we thought that the wisest thing that Mayor Edson could do would be to reappoint Prof. Chandler;—and we are of the same opinion still.

POISONING BY DOSIMETRIC ACONITE.

OUR readers will remember that a new medical sect has arisen whose chief claim to distinction is that they employ the alkaloids in granules. They entitle their "system" *Dosimetry* or *Dosimetric*. Dujardin-Beaumetz reports a case of poisoning by the use of dosimetric granules of aconitine. As this case is curious our readers may be interested in the details. The patient for whom the nitrate of aconitine was prescribed in gradually increasing doses, finally experienced tingling in the tongue, vomiting, intoxication, coldness of the surface, feeble pulse, and other symptoms of poisoning. The dosimetric physician was called on for an explanation when such serious symptoms were induced by his remedies. To demonstrate his own confidence in the accuracy with which the granules were prepared, and to prove their innocuousness, the dosimetric physician, then and there, took sixty drops of the prepared solution—equivalent to one-eleventh of a grain of aconitine—and in five hours he was dead. The lesson to be learned from this accident is an obvious one. Granules, unless pre-

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pared with great care, may contain an unexpected quantity of the alkaloid, and when a question of strength of any given preparation is to be determined, it were better to employ for this purpose some convenient animal—the Society for the Prevention of Cruelty to the contrary notwithstanding—than to offer one's self a sacrifice to misplaced confidence.

THE FEDERAL GOVERNMENT AND LOCAL SANITATION.

THE Board of Health of the City of Pensacola has entered into an agreement with the U. S. Marine-Hospital Service by which its street-cleaning, garbage removal, drainage, and sanitary inspections will be conducted under its own direction, while the payment therefor will be made by the United States Treasury Department. This is a new departure in municipal sanitary work, and health officers have developed a corresponding interest in the matter. We do not see, however, that the Treasury Department can ratify any such agreement as General Hamilton has made with Pensacola, even if the special fund appropriated by Congress had already been placed at his disposal by the President, and this we understand has not been done. It is the introduction of contagious or infectious disease from foreign countries which the law authorizes the President to assist in preventing, and it requires a considerable latitude in the construction of the law to hold that all the expenses of local sanitation from May to November may be assumed by the general Government. And why Pensacola more than any other and every other seaport on the South Atlantic and Gulf coasts? All are equally exposed to the danger of importing yellow fever, and a preference of one port over others violates the Constitution directly.

REVIEWS.

SMALLPOX AND SMALLPOX HOSPITAL OF NEW ORLEANS. OUTLINE OF QUARANTINE AND SANITARY OPERATIONS OF THE BOARD OF HEALTH OF THE STATE OF LOUISIANA DURING 1882. Pamphlet, pp. 27. New Orleans, 1883.

FROM this pamphlet, just issued by the Board of Health of Louisiana, we gather some interesting details concerning preventive sanitary work in that city. After the epidemic of 1877, when 1099 deaths were recorded, the disease gradually subsided. In 1879 the deaths numbered 141. Next year smallpox did not appear on the mortality lists. In 1880 1 fatal case occurred; in 1881 there were 5 deaths in 22 cases, and in 1882, 415 deaths among 1093 cases, the disease being evidently on the increase on account of the accumulation of unprotected persons in the city. New Orleans has a colored population of 60,000, most of which is unvaccinated. The Board is shown to have done its duty by earnestly recommending compulsory vaccination, by providing for gratuitous vaccination (during the year 4725 persons were vaccinated, over one-half of whom were colored), by having placed a warning flag on infected premises, or removing the patient to the smallpox hospital and thereafter fumigating the vacated rooms, and by having recommended the establishment of a new smallpox hospital. The present hospital is the private property of a physician, who takes care of the patients at a contract price of $1.60 each per diem. It consists of a large garden, long uncared for, and covered with dirty rags, bits of carpet, etc., in which are three shabby-looking buildings. Two of these are intended for the contract patients, while the other is occupied by the doctor and such "pay" patients as may come to him for treatment. In the public wards the utmost variety of old wooden and iron bedsteads, mostly deprived of their springs, is presented; and the mattresses, sheets, blankets, and quilts show a deplorable state of uncleanness, misery, and poverty. There are no curtains or shades to the windows to protect the sick from the glare of day; and ventilation has been forgotten. There were understood to be three or four nurses present, but it was impossible for the sanitary inspector or the investigating committee to learn what were their duties. The food seemed to consist of beans, hominy, and potatoes, articles little suited to sustain the strength of the patients in such a prostrating disease. The kitchen was furnished with a few pans and kettles, and had an old-fashioned privy attached. The inspector concludes thus: "The hospital is conducted and managed in an outrageous manner, is a shame to the City of New Orleans, and a disgrace to any enlightened community;" while the Investigating Committee sums up in similar language: "All we can say is, that a smallpox hospital, or any other hospital or asylum, intended for the relief of suffering humanity, organized, conducted, and managed as the Luzenberg Hospital of this city, is a disgrace to any city or town of ten times less importance and wealth than New Orleans. The fundamental fault lies, we think, in the contract system, which governs this institution. We cannot approve a system under which a consideration of —— per diem per head is paid for the treatment of destitute smallpox patients by any municipal authority to the private proprietor of a lot and a few rudimentary buildings decorated with the pompous and fallacious title of hospital." Hence the Board of Health recommended the building of a smallpox hospital for the city. This recommendation was approved and $5000 appropriated, but a difficulty appears to have been encountered in the selection of a site, an injunction having been granted against its erection in the proposed locality.

The smallpox patients are brought to this Luzenberg Hospital in the ordinary charity wagons that are used daily for the removal to the Charity Hospital of all cases of disease or injury, or in cabs, or spring wagons, or, as has happened, in the street-cars. These vehicles, after disposing of their dangerous loads, are used immediately all over the city in general business.

It appears also that the efforts of the Board to warn the public of the existence of the disease by means of the yellow flag were resisted, and that of the president to prevent the tearing down of the flag was defeated in the courts of justice; since which time, however, a bill has been passed by the General Assembly providing for the punishment by fine or imprisonment of persons who remove, tear down, or destroy the flags on infected premises.

Dr. Jones, President of the Board, concludes its defence by arraigning the City Council and the courts of justice:

"Did the City Council establish the Smallpox Hospital, as recommended by the Board in March, 1882?

"Did the courts of justice sustain the Board of Health in their efforts to protect the inhabitants of Louisiana

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from the most foul and disgusting and contagious of modern or ancient diseases?

"Did the City Council provide the necessary means (special ambulances) for the conveyance of smallpox patients?

"To all these questions, I answer, 'No.'

"The City Council, up to the present moment, have done nothing to relieve the situation." etc.

But the Board of Health pamphlet does not give the whole of the facts. It makes no reference to the assistence given by the Citizens' Sanitary Association. While the Board recommends that an ordinance be passed prohibiting the use of public hacks or carriages for the transport of smallpox patients, the Association quietly presents the city with a special ambulance for use in such cases; and while the Board recommends compulsory vaccination, the Association, in the absence of compulsory laws, endeavors to accomplish the vaccination of the colored people by securing the coöperation of their preachers.

MANUAL OF AUSCULTATION AND PERCUSSION. EMBRACING THE PHYSICAL DIAGNOSIS OF DISEASES OF THE LUNGS AND HEART, AND OF THORACIC ANEURISM. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. etc. Third edition, revised. Pp. xii. 242. Philadelphia: Henry C. Lea's Son & Co., 1883.

THE second edition of this practical and justly popular manual, was given to the profession in 1880. The fact that it was exhausted, and a new one called for in 1882, is ample evidence of the positive merit it possesses. It is conveniently divided into eight chapters, and the student is gradually led up from a general consideration of physical signs in health and disease, to the differential diagnosis of diseased conditions by a knowledge of these physical signs. As in his courses of practical instruction, so in this book, the author's plan is to simplify the subject as much as possible; to consider the distinguishing characteristics of different physical signs as determined by *analysis*, and as based particularly on the variations in the intensity, pitch, and quality of sounds; to impress the facts upon the student and reader, that the significance of physical signs relates to certain physical conditions, and that close study of the physical conditions in health and disease, is a *sine qua non* of success, in both diagnosis and treatment. In this edition, the author also gives the modes by which pulmonary signs may be reproduced in the lungs after removal from the body, and by artificial illustrations.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, March 27, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

PIROGOFF'S OPERATION.

DR. GERSTER presented a patient upon whom he had performed Pirogoff's operation. The man has suffered seven or eight years from osteitic disease involving nearly all of the tarsal bones. He had been subjected to a great variety of treatment, and finally Dr. Gerster proposed this operation, which he performed in the ordinary manner five weeks ago. The os calcis was not wired to the tibia, but union between the bones took place by first intention. The man was able to stump around the ward on the seventeenth day after the operation. There was one and one-quarter inch shortening.

DR. H. B. SANDS then read a paper on

THE QUESTION OF TREPHINING IN INJURIES OF THE HEAD.

(See page 463.)

DR. POST referred to the case of Dr. Van Sinderen, who, when a boy, was kicked on the head by a horse. A portion of the cranial bone nearly as large as the hand was removed from one side, and pulsation could be felt as in one of the cases presented by Dr. Halsted. He grew up to manhood, studied and practised medicine, and finally died of cerebral disease following the loss of a member of his family.

Dr. Post also referred to two cases of compound fracture of the cranium which he had recently seen in hospital practice. The first was that of an Italian, twelve years of age, who was injured by a fragment of stone thrown from the roof of a house, producing a depressed compound fracture. The loose fragments were removed, the depressed portion elevated, and the boy recovered perfectly.

At nearly the same time, a child fell from the third or fourth-story window and received a complicated injury. There were extensive compound fracture of the skull with depression, fracture of the thigh, etc. Dr. Post elevated the depressed portion of bone, but the shock was so great from the complicated injury that the patient died the next day.

In another instance a child fell from a moderate height, and after being a little dazed for a time, recovered its senses so as to be able to walk and to talk, but in the course of half an hour it became completely comatose. It was supposed that intra-cranial hemorrhage had occurred, and he trephined the patient, but did not find any blood at the seat of the injury. To his surprise, however, the coma passed away and the child recovered. At nearly the same time he had a case of almost precisely the same character, in which the patient recovered. He had supposed that the occurrence of coma half an hour or an hour after the receipt of the injury was pretty certain evidence of hemorrhage, but in both these cases recovery took place after trephining, and yet no hemorrhage was found.

DR. L. A. STIMSON, in reply to Dr. Sand's request for the experience of the Society with reference to the rarer methods of treatment, narrated two cases, one of compound fracture without trephining, and one of simple fracture with trephining. The first case he saw in Bellevue Hospital. A young man came on foot one morning, having received a blow upon the back of the head a little to one side of the median line, inflicted by a chisel. The wound was a linear one, the bone was penetrated, and one edge of the cut portion of the skull turned outwards. There were no head-symptoms. The man remained in the hospital for a week or ten days without symptoms. Suddenly, without any warning, severe cerebral symptoms developed and the case terminated fatally within a few hours. At the autopsy there was found an incised wound in the soft parts and in the bone, with very slight splintering of the inner table. The dura mater was not injured. There was an abscess about the size of a hickory nut in the substance of the brain, separated from the dura mater by a layer of healthy brain tissue. There was a small amount of pus and serum between the dura and the bone at the point of fracture. Death was apparently the result of the inflammatory processes in the wound, and of its insufficient drainage.

The second case was one of simple fracture treated by trephining. A young man fell from a truck and was removed to the Presbyterian Hospital in a coma-

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tose condition. Dr. Stimson saw him twenty-four hours after the receipt of the injury, and the patient was still comatose. There was no wound of the scalp and only a slight puffiness on the left side of the head, which the house surgeon said was not present when the patient was admitted to the hospital. There was slight weakening of the left forearm. There were no other symptoms. On the third day after the injury he received word that the patient had had several violent general convulsions, and on visiting the hospital he found him comatose, with high fever and considerable agitation, and with very decided paralysis of the extensors of the left forearm. Dr. Stimson made an incision upon the right side of the head along the motor area, and found a long linear fracture running from behind forward, parallel to and about three inches from the median line, with slight separation, but no depression of bone. He applied a small trephine at the site of the fracture, removed a button of bone, and found a thin layer of clotted blood between it and the dura. He enlarged the opening in the bone posteriorly and the dura bulged into it, but was without pulsation. He then applied the trephine a second time about one inch anteriorly to the spot where the first opening was made, removed a button of bone, and found a clot as before, and the dura also bulged. He then introduced the needle of a hypodermic syringe, and withdrew a small amount of fluid blood, after which he nicked the dura and evacuated about a drachm of blood, which may have come, however, from a vein wounded by the needle. The patient had no more convulsions. Toward the end of the operation he seemed to be more sensitive to the handling of the wound than at first. Afterwards he developed complete facial paralysis on the right side and died on the following day. No autopsy was allowed.

While he did not think that the soft parts should be divided in cases of simple fracture, or the bone trephined without positive indications, still he did not think that this operation is a grave one, if the dura is left uninjured. It seemed to him that interference in each case must be decided by a comparison of the possible benefits with the risks of the operation. In illustration of interference based on such comparison, he mentioned a case as follows: A woman had been insane for nearly two months after falling out of a second-story window, and receiving a scalp wound behind the motor region on the right side of the head. He trephined and explored for cerebral abscess. The dura was not opened; no evidence of abscess was obtained. The patient recovered from the operation and also from her insanity, within a fortnight. As in this case, the grave mental disability seemed to justify the operation, even in the absence of probable symptoms of abscess; so in another grave case, cerebral symptoms might make it proper to change a simple fracture into a compound one, in order to remove a depressed fragment or a clot.

DR. J. L. LITTLE referred to a case which came under his observation a few years ago at St. Vincent Hospital. The patient fell from a height and received a slight scalp wound, which exposed the left side of the frontal bone, about one inch above the angle of the eye. Exploration showed simply bare bone, without any evidence of fracture. The patient's symptoms were those of insanity, and she became so violent that, at the end of six weeks, it was arranged to have her removed to an insane asylum. Before leaving the hospital Dr. Little thought it best to trephine, and he removed two buttons of bone and also the bridge of bone which connected the two openings, but found nothing wrong. The inner table of the skull was perfectly normal. In less than twenty-four hours there was marked improvement in the symptoms, and within two weeks after operation the patient left the hospital perfectly sane.

Dr. Little further referred to a case which he saw in consultation with Dr. Van Wyck a few years ago. The patient was a child about seven years of age, who had received a compound fracture of the right parietal bone. There being no symptoms of injury to the brain, no operation was performed. About four weeks after, when Dr. Little saw it first in consultation, the child was suffering from symptoms of compression, paralysis, dilatation of the pupil, coma, convulsions, and had had several severe rigors. The wound was granulating. Dr. Little enlarged the wound, and removed several loose pieces of bone. There was no marked depression of the fragments. The symptoms of compression evidently not depending upon depressed bone, Dr. Little ventured to puncture the dura; but finding nothing, with a delicate bistoury he then punctured the brain substance, and found an abscess some distance below the surface. About a drachm or a drachm and a half of pus made its escape. The symptoms of compression rapidly disappeared. A fungus cerebri took place, which was treated by the application of dry absorbent powders and moderate compression. The child made a perfect recovery.

DR. POST referred to an autopsy in the case of a little girl, at which was found a depressed fracture of the skull, moderate in amount, that had not been attended with marked symptoms in the beginning. But after the lapse of several weeks, symptoms of encephalitis had come on, and had led to a fatal result. An abscess was found in the lower part of the frontal bone, on the side corresponding to the injury, and in the immediate vicinity of this depressed bone.

DR. SANDS remarked that he did not wish to be understood as being opposed to trephining in every case of simple depressed fracture. He merely wished to say that as such fractures are usually the result of a force applied over a considerable area, the lesions were liable to be extensive, and of such a character as to render trephining a useless operation; consequently, he would hesitate before converting a simple into a compound fracture. But if he believed that the fracture was limited in extent, and that mischief might be directly caused by a fragment of bone pressing upon the dura, he would not hesitate to trephine. He thought, however, that such cases were extremely rare.

The PRESIDENT said that his own experience accorded nearly with that of Dr. Sands. He had thought it was, as a rule, disastrous to add to an already existing fracture the complication of an external opening. In one or two instances where he had felt that the depression was abrupt and very marked, and that the symptoms were due to the depression, he had made an incision and proceeded to elevate the bone, but the cases of abrupt depressed fracture without breaking of the skin are very rare. In only one or two instances had he ventured to trephine, and he was not able to give the results. He believed that the true principle was that which Dr. Sands had announced.

DR. STIMSON referred to a case which illustrated the application of the principle advocated by Dr. Sands and Dr. Markoe. It was one of simple depressed fracture produced by a blow with a hammer. He had already reported the case to the Society. The patient was trephined and made a good recovery. There were no brain-symptoms.

The PRESIDENT remarked that in such a case the indications for trephining seemed to be very clear. Besides, if there were symptoms which seemed to depend especially upon the local injury, trephining should be performed.

DR. SANDS remarked that in simple fracture accompanied with deep depressions, recovery sometimes took

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place without trephining. He had seen an example of this kind many years ago in the Massachusetts General Hospital.

FOREIGN BODY IN THE ŒSOPHAGUS.

DR. J. L. LITTLE presented a specimen, with the following history: The patient was admitted into St. Vincent Hospital February 28. On the night before, she accidentally broke a plate containing two false incisor teeth. She placed the broken plate in her mouth before going to bed. On awakening in the morning, the pieces became loose, and one of them slipped down into the œsophagus. On entering the hospital, the patient complained of the following symptoms: Pain between the shoulders, and just below the clavicle, on the right side; was unable to swallow liquids, the attempt giving rise to severe pain; had had slight hemorrhage from the throat. Upon examination, she complained of great pain upon pressure over the œsophagus, just above the clavicle, but no indication of a foreign body could be felt. A digital examination, and the introduction of Cusco's laryngeal forceps failed to detect any obstruction. I then introduced a probang, with a rounded, steel hook at its extremity. This was passed down about six or seven inches below the tongue, and came in contact with the foreign body. I succeeded in hooking it, and in making strong traction; but, failing to dislodge it, I unhooked it, and, after several unsuccessful attempts, I finally succeeded in dislodging it. The patient then stated that the body had slipped down further into the œsophagus. I instantly reintroduced the hook, and was fortunate to catch the body again, and to draw it up until it was in sight. The hook then slipped off, and the plate slipped down again. I then quickly introduced a pair of œsophageal forceps, and succeeded in seizing and removing it. The plate removed contained one tooth, and was of a triangular shape, measuring one and seven-eighths inch in one direction, and one and one-quarter inch in another. A slight amount of hemorrhage followed the removal. The patient was able to swallow, with some pain, immediately after, but left the hospital the next day.

DR. W. T. BULL referred to two cases in which he had removed similar foreign bodies from the œsophagus with the ordinary "coin-catcher." The first was that of a patient who, nine days before admission to the hospital, swallowed an upper plate containing two front teeth, and took nothing afterward except fluid nourishment, and that with much difficulty. He said he had lost twenty-five pounds in weight. The foreign body lodged in the œsophagus just above the entrance to the stomach. It could be pulled up to about the level of the cricoid cartilage without difficulty, and then it would disengage from the instrument and be pushed back. Dr. Bull then resorted to the following manœuvre: He introduced two coin-catchers, one beyond the plate, the other just below the cricoid cartilage, to "lie in wait." With the first, the body was drawn up till it was arrested, when the second caught it at once, and it was removed.

In the second case, the rubber plate, a smaller one, was easily caught with the coin-catcher just within the entrance to the œsophagus, and removed at the first effort.

SECONDARY HEMORRHAGE AFTER LIGATURE OF THE FEMORAL ARTERY.

DR. POST continued the history of the case which he reported four weeks previously; one in which secondary hemorrhage occurred after removal of a sarcoma of the thigh, and in which he ligated the femoral artery; subsequently, hemorrhage occurred which he thought was evidently from the distal side. Believing it to be unwise to open the wound and to ligate the vessel, he applied a compress with bandage, from the toes upwards, suspended the limb, and this method was effectual in restraining further hemorrhage. The hemorrhage had not recurred and the patient was doing well.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

Annual Session, held at Birmingham, April 10, 11, 12, and 13, 1883.

(Specially reported for THE MEDICAL NEWS.)

APRIL 10.—FIRST DAY.

THE Association met in annual session. The President, DR. C. D. PARKE, of Selma, in the Chair.

After the usual addresses of welcome by DR. RASSEN, President of the Birmingham Medical Society, and MR. MCLANE, Mayor of the city, and the reception of the message of the President, the Association adjourned until 8 P.M., when

THE ANNUAL ORATION

was delivered by DR. E. H. SHOLL, of Gainesville. His subject was the *Work of the Profession*, and he was attentively listened to by a large audience.

APRIL 11.—SECOND DAY.

DR. JEROME COCHRAN, of Mobile, read a paper on the *Therapeutic Uses of Quinine in Alabama*. This paper was lengthy and exhaustive, and of such a nature as not to admit of an epitome without going beyond the limits of this notice.

DR. W. H. JOHNSTON, of Selma, read an instructive paper on *Recent Improvements in Gynecology*.

DR. B. H. RIGGS, of Selma, presented an essay on *Eclampsia Gravidorum*, in which he argued that these eclamptic seizures are due to a reflex action of the nervous system.

DR. F. TIPTON, of Selma, read a paper on *Some Points in Regard to the Eyesight of Children*, and also on the *Diagnosis and Treatment of Nasal Catarrh*.

DR. CHARLES P. SANDERS, of Pleasant Ridge, presented a paper containing *Some Observations on the Principles and Practice of Medicine within the last Fifty Years*.

DR. W. W. GOLSON, of Autauga, read a paper on *Rötheln*.

DR. JEROME COCHRAN read an elaborate essay on *Alcohol, its Physiological Action upon the System, and as a Cause of Disease*.

This was followed by a lengthy and spirited discussion, which was continued through the night session to a late hour.

THE CODE OF ETHICS.

DR. R. D. WEBB, of Livingston, presented the following resolutions, which were referred to the Board of Censors, with instructions to report at the morning session of to-morrow.

Whereas, The Medical Association of Alabama views with the deepest concern and regret the action of the Medical Society of the State of New York, at Albany, in February last, in adhering to its former action in regard to the Code of Ethics; and, although this Association, at its meeting held in Mobile, in April, 1882, passed resolutions condemning the former action, yet feeling that this is a blow at the fundamental principle of all medical ethics, we deem it proper, upon the reaffirmation of this dangerous doctrine by the Medical Society of New York, that this Association again declare its views; therefore,

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Resolved, That, as an Association looking to the advancement of medical science, we can but regard this action as unnecessary and unwise, and calculated to create schism in that noble body of men who have for so many centuries worked harmoniously together upon the basis of *unity of principle and community of thought.*

Resolved, That as an Association, acting through our delegates to the American Medical Association, at Cleveland, we will use every fraternal means to induce these erring brothers to return to their allegiance, to what we regard as the basis of medical ethics; and in the event of failure in this, we will use all honorable means to exclude them from a participation in the benefits and privileges arising from the medical compact, based upon this *oneness* in principle and thought, and springing, as it does, from a recognition of true scientific principles in medicine as opposed to special dogmas.

Resolved, That as the ethical relations of the profession, and the views, especially of the younger members, are greatly influenced by the tone of the medical press, we can but condemn the course of those journals which have espoused this "new code" idea, and we discourage subscriptions to such journals in this Association upon this ground, however worthy in other respects.

Resolved, That as the views and opinions of professors of colleges, whether on medicine proper, or medical ethics, are generally received as *ex cathedra* by students, and by them carried into the ranks of the profession, we can but view with distrust those medical colleges where this view of ethics is openly inculcated, and hence cannot consistently recommend such colleges to the medical students of this State.

April 12.—Third Day.

The resolutions introduced by Dr. Webb on yesterday, were reported back by the Board of Censors, with the recommendation that they pass.

They were then passed by the Association without a dissenting voice.

Dr. M. H. Jordan, who had been appointed as leader in the "*omnibus discussion*," then introduced the following subjects, accompanying each one, as introduced, by short and pertinent remarks, calculated to draw out discussion:

1. "Is the artificial production of abortion ever justifiable for the uncontrollable nausea and vomiting of pregnancy?"
2. "In abortion, should the secundines be removed by art, or left to the resources of nature?"
3. "The injudicious use of quinine. Is it hurtful in fevers attended by threatened local inflammations? Are its effects upon the hearing permanent?"
4. "The use of galvanic electricity in uterine therapeutics?"

Each of these subjects drew out spirited discussions, which occupied the greater part of the day. Want of space will not permit even an outline.

April 13.—Fourth Day.

The Board of Censors presented a lengthy and important report, which, with the review of the roll of the Societies and Councillors, and the election of officers, consumed the day.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. M. H. Jordan, of Birmingham.

Vice-Presidents.—Drs. Frank Tipton, of Selma, and S. M. Hogan, of Union Springs.

Secretary.—Dr. T. A. Mears.

Treasurer.—Dr. W. C. Jackson.

CORRESPONDENCE.

MURIATE OF QUININE.

To the Editor of The Medical News.

Sir: I have read with great interest Dr. Mixsell's article on the muriate of quinine (Quiniæ hydrochloras, U. S. P. 1880), in The Medical News of March 31, 1883. For the past two years I have been very much interested in the use of this valuable preparation, and have watched its effects very carefully in Germany, where it is a great favorite, not only in private, but in hospital practice. It is rapidly absorbed, and on this account can be given successfully in much smaller doses than the sulphate. I have found it a very valuable remedy in neuralgia, and I might say, "it works like a charm" in this painful affection. It is, in my opinion, very much to be preferred to quiniæ sulphas, in all cases. The great drawback, at present, to its general use is its great expense. I have lately imported some of the quiniæ hydrochloras through the house of Leopold Babo, of Boston, Mass., from Mark, of Darmstadt. The price is five dollars per ounce. This seems to be a very perfect preparation. It is to be hoped that an equally good one will be procurable in this country at a much lower price. I always prescribe it either in capsules or else in powders to be dissolved in a little water. Its convenience in this respect adds to its value. I should not care to have it made into pills. It has won its popularity by its rapid and faithful action, and to prescribe it in the pill form would, I fear, injure its reputation. I have repeatedly recommended it to brother practitioners, but so strong is the prejudice against all new preparations of quinine that I found very few willing to give it even a trial. The article of Dr. Mixsell's will, I trust, bring this very important remedy into more general use in this country.

Very respectfully yours,

W. Thornton Parker,
Act. Asst. Surgeon, U. S. Army.

Ft. Elliot, Texas, April 14, 1883.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

Action of the New York Academy of Medicine on the National Code of Medical Ethics.—At the stated meeting of the New York Academy of Medicine, held on Thursday, the 19th inst., resolutions referring to the Code of Ethics were presented, which excited a very animated discussion, and were finally passed by a two-thirds vote.

The question of medical ethics has produced a division of the profession in New York City, where the contest is most animated, which is extending throughout the State. Those who sustain the "National Code" have taken the position that all of its provisions must be maintained until it is modified by the American Medical Association; while those who advocate the Code recently adopted by the New York State Medical Society, which permits regular practitioners to consult with any legally qualified practitioners, be they homœopathists, eclectics, botanics, or what not, contend that they are acting within the statutes of the State, the authority of which is superior to that of any medical organization, and especially that of the American Medical Association. It is contended by the adherents of the State Code that the County Societies must of necessity modify their by-laws, so that they shall be in accord with the Code of the State Society.

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As regards the Academy of Medicine, this Society has an independent charter, and has long since adopted, as one of its by-laws, the Code of Ethics of the American Medical Association. It is the only Society in the State entitled to representation in the American Medical Association, and its delegates have already been appointed.

At the meeting of the County Medical Society, held just before the last meeting of the State Society, the President of the Academy, Dr. Fordyce Barker, to the great astonishment of many of the members of the Academy, made a long and earnest speech in favor of the "New Code." This excited a feeling of alarm among members of the Academy who are in favor of the National Code, especially as it became evident that the first Vice-President and many other officers of the Academy were also in favor of the "New Code." There was therefore, perhaps, on the part of conservative members of the Academy, some ground for the anticipation entertained by them of an attempt to commit the Academy to a support of the State Code; although the by-laws of the Academy can be modified only at a regular stated meeting, after notice given at a previous stated meeting, and then only by a vote of three-fourths of the Fellows present.

At the meeting held April 19th, there was an unusually large attendance, many who were not Fellows of the Academy being present. The registered attendance of Fellows was between ninety and one hundred. After the completion of the ordinary routine business, a short paper was read by Dr. Griswold, which was followed by the paper of the evening, by Dr. Wylie, which latter was discussed by Drs. Emmet, Lusk, and Chamberlain. Following this, under the head of new business, a set of preambles and resolutions was introduced by Dr. Austin Flint, Jr., with the following prefatory remarks:

"It is time that, in this Hall, presented by a distinguished Fellow and benefactor of the Academy, and in the presence of these portraits of former Presidents and distinguished Fellows, most of whom have passed away, resolutions should be introduced deprecating the admission of new Fellows who cannot conscientiously sign, as we have all signed, and cordially support, as we should all support, the Code of Ethics of the regular profession, which is the Code adopted by the by-laws of the Academy; I therefore move the adoption of the following:

"*Whereas*, The New York Academy of Medicine has adopted in its by-laws, as its standard of Medical Ethics, the Code of Ethics of the American Medical Association; and

"*Whereas*, Each newly elected Fellow of the Academy is required to sign its constitution and by-laws; be it

"*Resolved*, That the Committee on Admissions be, and is hereby, instructed to report to the Academy for election as resident Fellow, no physician who is known to the Committee to be in opposition to the Code of Ethics of the Academy, and who, as a consequence, cannot consistently sign the by-laws of the Academy.

"*Resolved*, That these instructions to the Committee on Admissions be continued in force until the American Medical Association shall have modified or repealed its Code of Ethics, and such modification or repeal shall have been adopted by the Academy, or until the Academy shall have modified or repealed its by-laws referring to Medical Ethics."

It was instantly moved and seconded to lay the preambles and resolutions on the table. The yeas and nays being called for, the motion to lay on the table was lost by the following count: yeas, 30; nays, 60.

The preambles and resolutions were then discussed by Drs. D. B. St. J. Roosa, A. Flint, Jr., S. S. Purple, R. F. Weir, A. H. Smith, I. B. Read, E. C. Harwood, E. L. Partridge, and C. R. Agnew. The point was raised by Dr. Agnew that the resolutions practically introduced a new requirement for resident fellowship, and were really amendments to the by-laws, requiring, as such, previous notice and a three-fourths vote. It was ruled by the President that the resolutions were not amendments to the by-laws.

Dr. Agnew stated, also, that no notice of the resolutions had been given to Fellows of the Academy, except to those supposed to be in favor of their adoption; that he became aware of the object of the meeting not before half-past seven in the evening; that the New Code party was taken by surprise, and had been entrapped, and that it was evident that the meeting had been packed. He characterized the proceedings as contrary to the laws of the State with regard to properly qualified practitioners of medicine, and as a trick worthy of the lowest form of political manœuvring.

Dr. Roosa followed in very much the same strain, and emphasized the remarks of Dr. Agnew, denouncing the measures proposed in the strongest terms. He was followed by Dr. Weir, who also opposed the resolutions as the work of a secret organization.

Dr. Flint, Jr., who spoke a second time, by permission of the Academy, defended the resolutions. He said that they simply affirmed the existing by-laws of the Academy. That, with regard to the election of new Fellows, it was evident, from circumstances which had already occurred, that instructions to the Committee on Admission were necessary. He deprecated the necessity of voting against candidates for the reason that they were opposed to the Code of Ethics of the Academy, when such candidates might simply be ignorant of the provisions of the by-laws. He stated that the Academy was the only chartered society in the State now entitled to representation in the American Medical Association, and in the medical societies of other States; that the movement to sustain the National Code should have originated in and extended from the Academy, but the conditions, with which many Fellows were familiar, had rendered this impracticable. These conditions were a powerful argument in favor of the resolutions. The profession is divided, and it is absolutely necessary that the Academy should take a position on one side or the other. He stated that the organization to sustain the National Code was not secret, but that its objects had been published in the medical journals, although not in the newspapers. In answer to the charge of "packing" the meeting, he stated that any Fellow or Fellows had a right to introduce resolutions in support of the by-laws of the Academy, and to ask those in favor of sustaining the by-laws to come to the Academy and to vote for the resolutions. He said, in conclusion, that, in his opinion, the action of the Fellows of the Academy who advocated the resolutions would compare favorably with the methods of those who adopted the so-called New Code at the State Society and at the County Society.

After the yeas and nays had been called, the preambles and resolutions were adopted by the following vote: yeas, 58; nays, 29.

It was then moved by Dr. Gouley to reconsider the vote on the preambles and resolutions, and then to postpone indefinitely the motion for reconsideration. The motion to indefinitely postpone was carried, thus preventing a reconsideration of the vote at a subsequent meeting.

Dr. Flint, Jr., then introduced the following resolution:

"*Resolved*, That the Academy hereby disavows any sympathy with the action of the State Medical Society, which has put the profession of the State, through its

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State and county societies, in an attitude of opposition to to the medical profession of the rest of the United States."

This resolution was discussed in much the same tone and spirit as the first resolutions, and was carried by nearly the same vote. A motion was also made by Dr. Gouley to reconsider, and then a motion was made to indefinitely postpone the reconsideration, which last motion was carried.

The President then asked, in the interests of harmony, that some Fellow make a motion to suspend the by-laws, and to postpone all stated meetings of the Academy until the time for the first stated meeting in October. Such a motion was made and lost; whereupon the President tendered his resignation, which he afterwards withdrew.

Dr. Weir tendered his resignation as first Vice-President and Fellow of the Academy.

Drs. Agnew, Roosa, and Cushman also tendered their resignations.

At this stage of the proceedings, undue excitement was occasioned by an inquiry by Dr. Purple as to whether the Fellows who had tendered their resignations had paid their dues to the Academy, on the ground that resignations were not valid unless the Fellows resigning had paid their dues. This inquiry gave rise to hisses and other marks of disapprobation. In reply to these demonstrations, Dr. Purple said that some Fellows of the Academy seemed to regard its by-laws as a dead letter, but he wished it to be understood that some who had grown gray in the Academy, proposed that the by-laws be strictly and impartially enforced.

A motion to suspend the by-laws, and to postpone the meetings of the Academy until October, was then made and carried by the required three-fourths vote.

A motion was made to accept the resignations, but a motion to adjourn was carried amid some confusion, and the meeting adjourned at a late hour. The resignation of the President was withdrawn, and the other resignations were not acted upon, and are still in the possession of the Academy.

The excitement produced by the proceedings of the Academy is most intense. The supporters of the National Code claim that the bitter feeling manifested by their opponents is an evidence that they had hoped to "capture" the Academy. Otherwise, they say, why should not the advocates of the "New Code" rest content with their so-called victories in the State and County Societies, and allow the Fellows of the Academy of Medicine to quietly reaffirm their by-laws, which they consider essential to regularity and to recognition by the regular profession in New York and elsewhere. They ridicule the statement that a majority of the Academy is not in favor of the by-laws as they exist.

A point strongly urged by the supporters of the National Code is that they have confined their publications to the medical journals, and have had no communication with representatives of the secular press; while their adversaries have reporters at their meetings, and flood the newspapers with "interviews," which, in itself, is a violation of Medical Ethics. Whatever else may be said of the movement at the Academy, no one has charged that the proceedings were not conducted with dignity and decorum, and an entire absence of personalities even under strong provocation. The successful party at the Academy assumes to take the position that their associates are defending their rights in the profession in a strictly professional way with courage, firmness, and moderation.

NEW ORLEANS.

(From our Special Correspondent.)

BOVINE VIRUS.—Physicians here are becoming more and more opposed to bovine virus. The use of it had become quite general, because of popular clamor for it. The unsatisfactory results may, in a measure, be due to the fact that the supply is brought from the North, and thus becomes old before it is used. We have seen many cases where the only results following its introduction were papular raspberry marks, which remain for an indefinite time, gradually fading away without pustulation. In each of two of these cases under our charge, fresh humanized virus produced a typical vesicle which ran through its regular course.

SMALLPOX INOCULATION.—A physician here has been practising the inoculation of smallpox virus attenuated with milk. He does not state whether or not he thereby causes smallpox or varioloid. Any question respecting the results of this method of practice has long since been definitely settled. No *tertium quid* can be formed by any admixture of smallpox virus outside the human system. The practice pursued by the gentleman referred to is reported to have been followed in several instances by smallpox. In reference to the above, the Louisiana State Medical Society in convention at Shreveport adopted the following resolutions, and referred them to its standing Committee on Legislation and State Medicine for action:

Resolved, That this Society emphatically affirms its strong confidence in the efficiency of vaccinations and revaccinations as the surest and only practicable means of preventing the spread of smallpox.

Whereas, This Society is informed that it is the practice of one or more practitioners of medicine within the limits of this State to inoculate human subjects with lymph or pus taken from smallpox patients, previously mixing it with milk or cream; therefore, be it

Resolved, That the practice of inoculating smallpox by mixing any product whatever from the body of a smallpox patient with milk, cream, butter, or any fluid obtained from the cow, is productive of no modification beyond that of direct inoculation from one person to another. It does not deprive the person thus inoculated of that power to communicate the disease through the atmosphere which natural smallpox possesses, and is, therefore, dangerous to public health.

There are no State laws or city ordinances with reference to this matter.

DRAINAGE.—The greatest rainfall that has been known here for years occurred on Saturday, April 7th. From 6.30 A.M. to 2 P.M., 6 inches of water fell, and by 10 P.M. it had amounted to 8.06 inches. From Saturday morning to Wednesday the total fall was over 10 inches. The streets were all flooded, and in the back parts of the city the water entered the houses. The fall from the Mississippi River to the Lake, a distance averaging 5 or 6 miles, is not over 15 feet from the top of the levees; the drainage of this city is thus a very serious problem. There is one advantage of this state of affairs, we can have no such thing as sewer gas, for we can have no underground sewers. The gutters are all open to the purifying action of the air, and so long as they are properly flushed with pure river water, and prevented from becoming stagnant, they do not appear to be sources of morbid contamination. Certainly they are not more likely to prove factors of disease than the underground sewerage system practised elsewhere. The New Orleans Auxiliary and Sanitary Association has done much good in this manner. It is to be hoped this plan will be continued this summer, although opposed by the State Board of Health, which, indeed, we have reason to believe, is seeking to obtain the legal abolishment of this useful association.

LEPROSY.—There are four cases of leprosy in the Charity Hospital. Your correspondent has seen histories of all of them, but no tracing of the disease is

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possible in any one of them. One is being treated with Chaulmoogra oil, and seems to be improving. They are to be published.

AN ADDRESS IN FAVOR OF THE NEW CODE.—The advocates of the New Code held another meeting in New York City last Friday evening. In the absence of the Chairman, Dr. A. C. Post, who was detained at home by sickness, Dr. S. O. Vanderpoel, of Albany, was called to the chair. After considerable discussion, the following address was adopted:

The Association for Preventing the Re-enactment in the State of New York of the Present Code of Ethics of the American Medical Association to the Medical Profession of the State of New York:

When very many members of a learned and liberal profession come to the conclusion that the rules by which their relations to their colleagues and to the public have hitherto been regulated have been injurious to themselves and to the community, it is evidently the duty of persons having these convictions to labor for the abolition of such rules, and to state clearly the reasons why they should no longer be enforced.

The Code of Ethics of the American Medical Association which is now in force is identical with that which was in authority in the Medical Society of the State of New York, and which was abolished at the annual meeting of that Society in February, 1882. It appears from the proceedings which led to the abolition of the Code in the State of New York that there had been a gradually increasing conviction among its members that some of the provisions of the Code were arbitrary and illiberal, and that a larger liberty should be granted the members of the Society in the performance of their professional duties. After a full discussion of the subject, a vote of the Society was taken, and by a constitutional two-thirds majority the Old Code was abolished, and a new one was enacted in its place. Among those who voted for the substitution of the New Code for the old one were many who preferred the entire abolition of the special ethical code as unnecessary for the guidance of an honorable and learned profession. But the members who took this view of the subject were willing to unite with those who were less radical than themselves, in order to secure the abandonment of the most obnoxious features of the Old Code.

At the annual meeting of the Society in February, 1883, a strong effort was made by the advocates of the Old Code to undo the work of the previous year, and to re-establish in this State the Code of the American Medical Association. For this purpose, no exertions were spared to secure the election of delegates who were in favor of the proposed retrograde movement. But the efforts which were then made failed to secure the votes of even a majority of the members of the Society.

It is well known also that a strong effort is now being made, even by coercive measures, to secure in advance such a representation at the meeting of the Society in 1884 as will undo the work which was done in 1882 and 1883. Believing that such action would be injurious to the honor, dignity, and usefulness of the profession, and to the best interests of the community, we earnestly entreat the members of the profession to give the subject their serious consideration, and to use all honorable and legitimate means to prevent the re-enactment of the present Code of the American Medical Association by the Medical Society of the State of New York. It appears to us to be particularly important to preserve to each member of the profession perfect liberty to decide for himself with whom he shall consult in order to secure the best interests of the sick.

The arbitrary rules which have to so large an extent controlled the actions of medical men, and which were originally designed to defeat the efforts of irregular practitioners to gain influence with the community, have signally failed to accomplish the object in view. These rules also have not commanded the respect of intelligent men in other professions. They have been regarded as belonging to the same category as the rules by which the various trades-unions have infringed upon the individual liberty of their members, subjecting those who resisted the arbitrary action of the majority to the greatest indignities, pecuniary losses, and even personal sufferings. We call upon all fair-minded medical men to unite with us in freeing the profession from this stigma, and in giving all its members perfect liberty to practise their art in accordance with the dictates of their own consciences, and with the enlightened opinion of intelligent men who are engaged in other pursuits.

There are indications that the movement which has begun in this State is destined to extend throughout the Union, and to end in establishing a larger liberty than we have hitherto enjoyed, and in increasing the usefulness of our profession, and in giving it a more honorable position in the State and in the nation.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.—The Fifth Annual Congress of the American Laryngological Association will be held in the City of New York, commencing on Monday, May 21, 1883, at 10 A.M., and continuing during the following two days, May 22 and 23. Sessions will be held each morning and afternoon. The following Fellows have signified their intention of presenting papers: Drs. Allen, Asch, Bosworth, Solis-Cohen, Delavan, Donaldson, Elsberg, French, Hooper, Ingals, H. A. Johnson, Knight, Langmaid, Lefferts, Lincoln, Major, Morgan, Porter, Robinson, Smith, and Wagner.

The volume of *Transactions* for 1882 will be ready for distribution within a few days.

THE WISCONSIN STATE MEDICAL SOCIETY will hold its annual meeting on May 3d.

DR. JOHN S. BILLINGS, U.S.A., was elected a member of the National Academy of Sciences, at its meeting in Washington, last week.

JEFFERSON MEDICAL COLLEGE.—DR. ROBERTS BARTHOLOW, Professor of Therapeutics and Materia Medica, has been elected Dean of the Faculty, in the place of Dr. Ellerslie Wallace, who has resigned on account of ill health.

THE MEDICAL COLLEGE OF VIRGINIA.—The Supreme Court of Appeals of Virginia last week rendered a decision in the case of the Medical College of Virginia, upholding the old Board of Visitors, and denying the power of the Governor to create vacancies in the Board.

THE FORT WAYNE COLLEGE OF MEDICINE held its fourth annual commencement on March 1. Ten candidates received the degree of Doctor in Medicine. The faculty valedictory address was delivered by Prof. W. H. Gobrecht.

HARVARD AND THE TEWKSBURY INQUIRY.—A press dispatch states that the testimony in the Tewksbury investigation reflecting on the Harvard Medical Society will receive due attention before the investigation closes, and some interesting scenes are promised at the State House. Mr. Brown has summoned as

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witnesses to testify before the Committee, President Eliot, of Harvard, Dr. Oliver Wendell Holmes, Dr. Henry J. Bigelow, Dr. David W. Cheever, Dr. H. H. A. Beach, Dr. William L. Richardson, and Dr. Charles B. Porter. All these physicians have been Demonstrators of Anatomy at the medical school, and their testimony, as well as the cross-questioning to which they will doubtless be subjected by the counsel for the prosecution, Governor Butler, will probably mark the climax of interest in the investigation.

NEW MEDICAL COLLEGE IN MEXICO.—The Mexican Government opened, in January, a free medical college in Guanajuata, the capital of the State of that name. The course will comprise six years.

A LARGE VERDICT FOR DAMAGES.—In the second trial of the suit of John Lilly against the New York Central and Hudson River Railroad, for $35,000 damages, for the loss of both legs, by accident, while employed by the defendant in the yard of the Grand Central Depot, the jury returned a verdict for that amount, which is equal to the largest sum ever recovered in a similar suit in the Brooklyn Courts.

NEW MEDICAL JOURNAL.—The Medical Society of Amiens has begun the issue of *La Gazette Médicale de Picardie*, which will be its official organ.

THE PETITION OF THE SANITARY COUNCIL OF THE MISSISSIPPI VALLEY TO THE PRESIDENT OF THE UNITED STATES.—The Committee appointed in accordance with the resolution of the Sanitary Council of the Mississippi Valley to petition the President of the United States on behalf of the National Board of Health, and consisting of Drs. Debrell, Haskell, Dickenson, Kedzie, Speigelhalter, Jones, Speed, Carr, and Dancy, and Messrs. Fenner, Daniels, and Hadden, has drawn up and forwarded the following:

"We, the Committee appointed, sincerely petition that the fund of $100,000, in the event of the outbreak of yellow fever or other epidemic disease on the coast of our country, be placed at the disposal of the National Board of Health. That body can give confidence to the people of the Valley as to the necessary precautions and safeguards yearly demanded by the exposure of the Southern ports to the ravages of yellow fever. Their inspection stations, and the methods their officers have adopted in matters of isolation and disinfection, and in establishing quarantine only when the emergency of the occasion demands it, have earned for the National Board a degree of confidence that of itself alone is worth millions of dollars to the commerce of the country. To supplant this body, or withhold from it necessary funds to maintain inspection stations at all exposed points, will, in our humble judgment, cause the wheels of commerce to clog, bring about a feeling of distrust, and on first alarm, be it true or false, cause recourse to shot-gun policy quarantine, which can but prove destructive to the commercial interests of the Mississippi Valley, which, in a measure, affect the entire Union. With these views submitted, with full faith in the appreciation and solicitude you must feel for the public health and welfare, we herewith subscribe ourselves your most humble petitioners."

Signed by the delegates from the States of Arkansas, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Ohio, Tennessee, and Wisconsin.

QUARANTINE AND LOCAL SANITATION IN PENSACOLA.—The following are the terms of the propositions made by Surgeon-General Hamilton of the Marine-Hospital Service, to the Board of Health of Pensacola, Florida:

"The Treasury Department will assume charge of the Quarantine Station of this port, and manage it without any expense to the city of Pensacola. It will conduct it under its own regulations as at present existing, and such additional ones as experience may demonstrate the necessity of, and in harmony with such suggestions as may be agreed upon by the Board of Health.

"As the representative of that department, I will have prepared instructions relative to the mode of fumigation and disinfection of vessels, discharge of ballast, and the inspection and general sanitary condition of all vessels entering the port. In these matters the department must use its own methods, without, however, interfering with the State and local laws, which it has no desire to conflict with.

"Aid will be extended to the Board of Health of Pensacola, in order to effect and maintain the thorough sanitation of the city. First: in the payment of bills for the removal of garbage during the months of May, June, July, August, September, and October. The garbage shall be systematically collected and removed from every house and building or enclosure under a contract made by the Board of Health, the contractors to give bonds satisfactory to the Board for the faithful performance of the work and providing for liquidated damages in case of failure. The bills for the work done under these contracts to be certified by the acting Assistant Surgeon of the Marine-Hospital Service at this station, and the president or secretary of the Board of Health. Contracts to be made for temporary drainage, and for the cleaning up of the principal streets. The drains to be opened, and gutters made under the direction of the City Engineer, and approved by the Board of Health. The contract to provide that the work shall be commenced within the earliest practicable time, and completed within thirty days from signing, otherwise the contractors to be subject to a stipulated demurrage in case of default. The work to be paid for under like restrictions, as that under other contracts.

"Two sanitary policemen are to be appointed for the season, and four temporary inspectors to be employed for the period of twenty days.

"All requisitions of the Board of Health to be forwarded through the representative of the Marine-Hospital Service at this station. Material for disinfection and fumigation will be furnished upon requisitions for the disinfection of the premises of such persons as are unable to provide or pay for themselves: none of this material to be furnished those who are able to pay for the same."

A WORD FOR THE DOCTORS.—Our clever contemporary *Punch* is always ready to wield its influence on behalf of science and humanity. In its issue of the 14th inst., it speaks as follows of the discussion a few days before in Parliament on the new Anti-Vivisection Bill.

"The Vivisection Abolition Bill was talked out the other day, and, as we do not wish to see the progress of medical science checked, we cannot regret that the proposal was lost. The whole question lies in a nutshell. Vivisection, as the law stands, can only be practised under very stringent regulations, and the authority of a license granted by the Home Office, which, in very rare cases, allows experiments to be made without anæsthetics. Only one per cent. of the investigations made equals the pain of an ordinary surgical operation, and what does the world owe to vivisection? The discovery of the circulation of the blood, the antiseptic surgery of the present day, the famous operation by which Mr. Spencer Wells and others have saved the lives of many hundred women;

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all these, and a thousand other benefits we owe to the experiments which it is now proposed to abolish. As Mr. Cartwright said during the debate—we prefer to quote him instead of a medical man like Dr. Playfair—'Professor Lister's discoveries had revolutionized surgical science, and it was said he had reduced the mortality of man by seven or eight per cent., and yet on account of the restrictions surrounding the provisions of the present Act, he had been obliged to go abroad in order to prosecute his invaluable researches. In the Lamson case the clinching evidence which brought about a conviction, was derived from an experiment on a living animal. . . . . If this bill were passed into law, experiments would be made on human frames, and in the rudest form. In the nineteenth century the honorable and learned member asked them to prohibit investigation, to annihilate inquiry, and to say science was a thing that must be curbed.'

"No cases of cruelty under the existing Acts can be cited as occurring in this country, all the horrors of which we read, taking place in Continental cities where there are no restrictions. As Sir William Harcourt said, the question is "Whether man as the superior animal has a right to use animals for his benefit?" Of course that can only be answered in one way, but the antivivisectionists rush off into shameless abuse of a noble profession, and do their cause no good by it. Sir William Harcourt well summed up the debate when he said:

"They must bring a little common sense to bear on this question. They must look at it in the light of experience, and he ventured to say that true humanity was on the side of those eminent men, many of whom were among the most tender-hearted members of society. He was satisfied that, under the administration of the existing law, very little pain was inflicted, and that what pain was inflicted was under such securities and guarantees that it was not only in the course of experiment, but was abundantly justified."

"*Mr. Punch* yields to no one in his detestation of cruelty. But crimes must not remain undiscovered, our children must not die of zymotic diseases, and our wives and sisters perish for the want of the skill and the knowledge that have been obtained by humane operators from vivisection—conducted, be it remembered, in ninety-nine cases out of a hundred with the administration of anæsthetics."

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending April 14, 1883, indicate that inflammation of the brain, diarrhœa, tonsillitis, pneumonia, and whooping-cough have increased; that influenza has considerably decreased; and consumption and measles have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 14, and since, at nine places, scarlet fever at eighteen places, and measles at twenty-three places.

One case of measles came with immigrants arriving at Port Huron, April 12.

THE PLAGUE IN PERSIA.—Dispatches from Constantinople and Smyrna indicate that a contagious disease has been prevailing during February and March in a group of Kurdisch villages actually situated on Persian territory, but in close vicinity to the Turkish town of Suleimanié. Sixty deaths were reported to have occurred in the two months. The Kurds in the neighborhood have instinctively proceeded to form an armed cordon around the infested villages, interdicting all communication. The Sanitary Council of Constantinople instructed their representative at Van, Dr. Steptovitch, to proceed to the villages, and investigate the disease. The doctor endeavored to obey his orders, but was not permitted to enter the villages. His report indicates, however, that the disease is decidedly the plague. A quarantine guard has been placed along the frontier, and every measure taken to prevent the introduction of the pestilence into Turkish territory.

OBITUARY RECORD.—Died, at Washington, on the 24th inst., JAMES CROXALL PALMER, M. D., late Surgeon-General, United States Navy, aged 72 years. Dr. Palmer was born in Baltimore June 29, 1811, and graduated in the arts at Dickinson College, Pennsylvania, in 1829. He then begun the study of law, but subsequently relinquished this profession to enter the navy. Being too old to enter as midshipman, he studied medicine, and on March 26, 1832, he was commissioned Assistant-Surgeon, having just received his degree of M.D. from the University of Maryland. In 1838 he was ordered to the store-ship "Relief," of the exploring expedition under Lieut. Charles Wilkes, and was subsequently transferred to the sloop "Peacock," whose adventurous cruise and subsequent wreck are recorded in the history of the expedition. On September 27, 1841, Dr. Palmer was commissioned as surgeon. In 1865 he was appointed Fleet Surgeon of the Western Gulf Blockading Squadron, commanded by Admiral Farragut, and was attached to the flagship "Hartford" at the battle of Mobile, August 5, 1864. On 3d of March he was commissioned Medical Director, and on the 10th of June, 1872, as Surgeon-General. From that office he was retired, according to law, on June 29, 1873.

—— At Columbia, S. C., on 18th of April, EDWARD BERRIAN TURNIPSEED, M.D., aged 54. He was a native of this country, and a graduate of the South Carolina Medical College, in Charleston. He subsequently studied two years in the Paris hospitals, and at the outbreak of the Crimean War joined the Russian Army as surgeon-major. He distinguished himself during the siege of Sebastopol, and was made a Knight of the Orders of St. Anne, St. George, and St. Andrew respectively by the Czar. He returned to America in 1856, remaining in New York until 1859, when he came to Columbia, where he has since pursued a general practice, giving a preference to surgery.

—— At Hartford, Conn., on 17th of April, GEORGE B. HAWLEY, M.D., aged 72 years. Dr. Hawley was for many years a prominent physician in Hartford. He died at the Hartford Hospital, of which he had been a director from the time it was founded, in 1854.

—— The death is announced of DR. D. JUAN BABÉ, one of the editors and founders of *La Gaceta Medica de Catalana.*

—— DR. MONTALIER, one of the most esteemed members of the medical faculty of Bordeaux, died on March 24, at the age of sixty-four years.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 16 TO APRIL 23, 1883.

SCHUFELDT, ROBERT W., *Captain and Assistant Surgeon.*—To report in person to the President of the Army Medical Examining Board, in session in New York City, for examination for promotion, on completion of which to return to proper station.—*Par. 10, S. O. 87, A. G. O., April* 16, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, MAY 5, 1883. NO. 18.

ORIGINAL LECTURES.

FISTULÆ COLLI CONGENITÆ.

A Clinical Lecture, delivered at the College of Physicians and Surgeons, New York.

BY GEORGE M. LEFFERTS, M.D.,

CLINICAL PROFESSOR OF LARYNGOSCOPY AND DISEASES OF THE THROAT.

GENTLEMEN: A chance presents itself to-day of demonstrating to you a very rare case, and, in connection with it, of calling your attention to a very unusual subject. I do both with pleasure, and congratulate you and myself upon the opportunity, for although the condition on which I shall lecture to you must perhaps be regarded from a practical point of view as a curiosity only, still its inherent interest, involving as it does a study of the laws of human development, the great rarity of its occurrence and the paucity of its literature, hence the general unfamiliarity with it, render it one of more than passing scientific value, and one with which it is desirable that you should at least have a cursory knowledge. To-day, the chance occurs of acquiring it. I accept and utilize it for you. It *may* speedily fall to your lot in practice to meet with such an instance as that now before you; you must meet it with understanding, and in preparing you to do this, I likewise prepare you to appreciate your good fortune in having such a rarity thrown across your professional path to enliven it.

A strong and well-formed young man presents himself for our inspection. As far as we can see, he is free from any marked deformity or congenital malformation, and he assures us that this is also true for those parts of his body which are covered. This is an important point, for the congenital defect of the neck, which will claim our special attention, is not infrequently associated with malformations of other parts. He has visited the clinic for the purpose of having an ordinary naso-pharyngeal catarrh treated, and, while detailing his symptoms, has incidentally called attention to the peculiarity of his neck. He knows that something is wrong, but the condition having been present as long as he can remember, and giving him no trouble, he has never paid any special attention to it. We, appreciating its interest, will do so. Let us examine; you will have to look closely. A minute opening, no larger than a pin's head, upon which I now place my finger, is located, as you see, to the inner border of the sterno-cleido-mastoid muscle, upon the right side, and a little above the level of the cricoid cartilage. As the patient swallows, you notice that it is drawn upwards and inwards, and becomes slightly funnel-shaped. It is a small, round perforation through the skin, with smooth, flat edges; looks indeed very much like the opening that a large pin stuck through a bit of paper would make. There is no redness, no swelling of the surrounding parts, nothing that would attract special attention to the little opening. As I press from above downwards on the neck, a drop of clear, viscid mucus exudes from its mouth, and separating the lips, as I can slightly do, I see a pink mucous membrane. How far inwards or in what direction does the canal, of which this is evidently the mouth, extend? This question I can only answer after using a probe, and of necessity a very fine one. Watch now as I pass it; it at once takes a direction upwards and slightly backwards. With some little manipulation, but no force, I cause it to pass along the side of the thyroid cartilage, then backwards towards the angle of the jaw; here it stops; and the patient, who has meanwhile complained of a tickling in his throat, coughs. This would lead me to suppose that perhaps the point of the probe had passed into the lower pharynx, but of this I am not sure. I could not see it there when I looked with the laryngoscopic mirror a few moments ago, after passing the probe, as I have just done before you—and again I seem to have reached the end of the fistulous tract—and entered a *cul-de-sac*. I diagnosticate the fistula then as an incomplete one, having an external mouth only. I might, in order to prove this view, inject the sinus with some solution, colored or otherwise prepared, so as to be recognized or tasted by the patient, if it entered the pharynx through an internal opening, but I judge it to be unnecessary. What are its precise direction and relations? The probe can be felt in the canal throughout the greater part of its course; this helps us to decide; and judging from the known direction taken by this form of fistula, I know that it has probably passed first under the deep cervical fascia, then along the outer border of the thyroid cartilage, parallel with the sterno-mastoid muscle, thence above the sheath of the great cervical vessels, under the digastric muscle and above the hypoglossal nerve, to somewhere near the posterior border of the palato-pharyngeus muscle. Had it continued its course—had the case been one of complete fistula, with internal as well as external mouth—the lateral pharyngeal wall would have been perforated just here, and the inner mouth of the canal been found perhaps by a sharp eye, just below the pharyngeal orifice of the right Eustachian tube. I now withdraw the probe, and, on feeling for the fistulous tract, discover its lowermost portion easily by the sensation conveyed to my finger of a hard, thick cord beneath the skin. I move it slightly to and fro. This size is not due to the calibre of the fistula alone, but more especially to the dense connective-tissue adhesion of the little canal to the surrounding parts. The fistula itself is small, with thin, elastic walls, and lined with mucous membrane. It is wider within than just at its mouth, but still it is very small.

I do not know that we can gain any more information by further examination. Let us recapitulate the results already obtained, and see in what position they place us as regards the question of diagnosis. We have demonstrated the presence of a small, narrow, fistulous tract, connecting with surrounding parts, and extending upwards from the region of the cricoid to somewhere near the right lateral and lower pharyngeal wall; that here it terminates in a *cul-de-sac;* that its mouth is minute, rounded, and shows no signs of irritation; that its presence is unaccompanied by any marked subjective symptoms; and that the lesion is congenital, or at least has existed since the patient's earliest recollection. If I eliminate now one or two conditions with which the present one might be confounded—mainly, salivary, tracheal, and glandular fistulæ—I shall be ready with my diagnosis. Salivary fistula it cannot be—its position and course forbid; moreover, its secretion, slight in quantity and viscid, is widely different from saliva. Tracheal fistula (congenital) is rare; even if it ever occur, the fistulous

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canal in this case evidently does not communicate with the air-tract. Glandular fistula requires a moment's more thought, for it would be most easily mistaken; but no. A glandular fistula—one originating in the degeneration or suppuration of an enlarged lymphatic—is not uncommon in the neck, but there is nothing congenital in its character; it differs in its discharge, in its appearance, and in its being associated with other strumous indications from the present case. The clinical history allows us to at once dismiss any thought of the fistula being due to injury of neck, disease of the laryngeal cartilages, or the like, and I hesitate no longer to announce to you that the case is one of incomplete, with external mouth, congenital fistula of the neck—technically, a cervico-branchial fistula—the *Halskiemenfistel* of the Germans, although it has never before been my fortune to meet with an instance.

Let me now, using our case as the clinical illustration, review briefly for you the interesting subject of congenital fistulæ of the neck. Two forms only exist—aerial fistulæ, a term which explains itself, and cervico-branchial fistulæ, of which I shall speak more precisely in one moment; of the first, I need not say much; indeed, there is not much to say. Fistulous openings, or, more rarely, fistulous tracts, communicating directly with either the larynx or trachea, and existing only as the result of an arrested development of the primitive canal—congenital, in other words, in their origin—are extraordinarily rare. The small, round, external mouth of the fistula always lies in the *median* line of the neck at some point, an important diagnostic difference from the opening of the cervico-branchial fistula, which is always, or with very rare exceptions, located *laterally* or *bilaterally;* and I may here again call your attention to the fact that the former always opens into the air-tube, the latter never, always into the pharynx—in either case, of course, if it be complete. Mark now the obscurity which envelops the subject. A congenital, aerial fistula, communicating directly with the larynx, is, it is said, unknown. A few cases are reported, but are doubtful, in which a complete fistulous tract commenced over the lower edge of the thyroid cartilage, or over the middle of the upper tracheal ring, and extended thence to a point above the upper border of the larynx, where it entered the air-tube. In one instance only has the tract extended downwards, and entered the trachea. On the other hand, instances are more common—if the term common can be applied to such a rarity—where an incomplete fistulous passage commencing in the median line of the trachea, lower down, extended downwards towards the *manubrium sterni*, and ended in a *cul-de-sac*. But, really, the question is of little practical importance; little is absolutely known about it, and we need not dwell upon it. The very possible existence of the condition is denied by some authors.

I turn then to the second variety of fistula, the cervico-branchial. The subject is much more interesting, but my limited time will oblige me to curtail much that I should like to say to you, especially concerning the development of the branchial arches in mammals, a correct understanding of which process is necessary for the subsequent explanation of the abnormalities under notice. I can but condense for you the information that is to be gained by the study of an elaborate article by Cusset, and this I do, first acknowledging my indebtedness to him, and my admiration for his masterly essay.

The face and prevertebral portion of the neck, he tells us, are developed in all vertebrata at the expense of a branchial apparatus composed of a series of parallel arches—four in number—separated by clefts; in man, this condition is transitory only—the morphological changes, by which the arches and clefts disappear, are subject to regular laws and any causes hindering the development and closure of these arches tend to make permanent some transitory condition; hence, numerous abnormalities from monstrosities to simple fistulæ and cysts, of which latter, I cannot speak to-day—I confine myself to the fistulæ alone.

The arrest of development, which gives rise to the fistulous tract, may occur along any of the lines of clefts between the branchial arches, but the cleft usually at fault is the fourth or that below the fourth arch, and the line along which most of the abnormalities have been observed, corresponds with the anterior border of the sterno-mastoid muscle. In most cases, also, the external orifice was situated just above the episternal notch, and the sinus has run thence upwards in the manner that I have described in speaking of the case before us—terminating in either one of the two ways that I have mentioned. Along the lines of the three upper clefts fistulæ occur more rarely, and the orifice usually selects a definite position in each cleft. When the third cleft is at fault, the origin of the fistula is usually found in the neighborhood of the thyroid cartilage, as in our case. If the second, at the great cornua of the hyoid bone; and if the first, along the edge of the lower jaw or at its angle.

Now, as to concurrent abnormalities: Do they exist in such cases? Yes, but as a rule only, I believe, when the arrest of development affects the first cleft, or is between the first and second branchial arches. The auditory apparatus is developed here to great extent, and deformities of the ear and deafness sometimes accompany the branchial fistulæ; abnormalities of the lung, hare-lip, and cleft-palate have also occasionally been noticed. The hereditary character of the lesion is always marked, pronounced when the fistula is complete. Sex has no influence.

Bear with me now, for a few minutes longer, while I allude to certain points in connection with these lesions, which are of importance and will perhaps be of more interest to you than those of which I have just spoken. I shall be brief. From what has been said, you have learned that a branchial fistula may be, (1) complete; (2) with external orifice only, this is the commonest form; and (3) with internal orifice alone. The latter class, let me say, is not only rare, but is doubtful. A diverticulum, in the very few recorded instances, has existed from the side of the pharynx, it is true, but this may have been only an œsophageal hernia, and not an incomplete fistula; the question is difficult to decide.

Some figures that I have here jotted down give additional and valuable facts. They relate to the whole number of cases collected by Cusset; since the date of his essay, I may say but two or three are reported, as far as I am aware, in all certainly less than one hundred instances are recorded in all literature.

Of the cases of complete cervico-branchial fistulæ, 18 are referred to, or 23 per cent. of the whole number. Cases with external orifice alone 52, or 69 per cent. of the whole, proving the statement that this is the commonest variety. Of those with internal orifice, only 5, or 8 per cent. of the total, but these—as I have told you—are doubtful. As regards their location, in 25 per cent. the fistula was bilateral, in such cases the fistulæ converge as they ascend in the neck, in 46 only on the right side, in 17 on the left, and 8 were median—a rarity which complicates the diagnosis, unless care be taken to explore the tract thoroughly, and differentiate it from that of an aerial fistula. The figures also show that the hereditary character of the lesion was marked (30 per cent.), and that if this tendency existed, the fistula was usually a complete one.

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The question now arises, and it is the last to which I shall call your attention: Shall such fistulæ be surgically interfered with, or shall they be left severely alone? Much depends, of course, upon the nature of the individual case. Occasionally the obstinate persistence of the fistula gives rise, not only to a deformity which is annoying to the patient, and for which he will be likely to seek relief at your hands, but it may be to more serious symptoms; such have been reported. If the external orifice closes, and closure of one or the other orifices of the fistulous tract, in the course of time, does not appear to be unusual, accumulation may take place somewhere in the sinus and give rise to severe pain, aphonia, and epileptic seizures, as well as interference with deglutition or with respiration; the latter either directly by pressure on the trachea or larynx, or, it may be added, by involvement of nerve-filaments in the part irritated: for it is a curious feature, that in several of the instances reported, interference with the fistula excited irritability of the bronchial mucous membrane.

In such cases, but I conceive that they are rare, it may be necessary to effect the obliteration of the whole sinus; ordinarily they may be left alone, perhaps, my experience with them is not great enough to enable me to judge; certainly in the present case this is the advice that I shall give the patient. The earlier attempts to effect the closure of the sinus by means of nitrate of silver in substance or injections of a solution, were unsuccessful. A permanent or successful cure, can only be attained by complete destruction of the mucous membrane lining the whole canal, and this is confessedly difficult. Complete fistulæ are the most intractable; and the danger always would be, that the outer opening might be closed, and the inner remain, converting the case into one of fistula with internal mouth, a condition more dangerous perhaps than the original disease. Iodine injections have effected a partial cure, by causing the closure of the small inner orifice in complete fistulæ; but it must be added have, in more than one case, caused also alarming symptoms. Complete ablation of the mucous membrane of the fistulous tract, appears to be the most successful procedure, as I have said, a bougie being used in the sinus as a guide for the knife; Weinlechner and Sarazin have thus happily operated. But remember, gentlemen, that the close connection of the fistula with very important blood-vessels and nerves, causes such an operation to be more or less of a hazardous one. This is also true of the use of the galvano-cautery, and I feel that I am giving you good and sound advice, when I caution you as I now do, to pause, especially if you should meet with such an instance of the affection as that now present, before you resort to the reckless and inconsiderate use of such heroic means—"Discretion is the better part of valor."

ORIGINAL ARTICLES.

THE WEAK POINTS IN A LISTER DRESSING, AND THE ADVANTAGES OF CORROSIVE SUBLIMATE AS AN ANTISEPTIC.

BY ROBERT F. WEIR, M.D.,
SURGEON TO BELLEVUE AND THE NEW YORK HOSPITALS.

(*Read before the New York Surgical Society, April 10, 1883.*)

IT must be admitted by the most devoted of the advocates of Listerism, that the dressings applied with the strictest attention to all the details of this system, not infrequently fail in controlling the progress of putrefaction. This is the case, not only in a severely lacerated wound, but also at times in a comparatively simple one.

It is difficult in all cases to explain why this should be so; in many, no doubt, some error in the technique may have been committed by the surgeon himself; in certain other cases it must be assumed either, that the antiseptic itself, *i. e.*, the carbolic acid, is at fault or has been wrongly applied, or that the dressings are themselves imperfect in construction.

In connection with these two points, considerable vagueness has been encountered. According to Mr. Lister, who started with a solution of 1 part of the acid to 100 parts of water, the solutions to be employed now, are for the instruments, hands, etc., 1 part to 20; for the spray, 1 to 30; and for the sponges, etc., 1 to 40. Why should such diversity exist? What strength, in other words, is necessary to arrest or destroy bacteric life in a wound. Clinical experience has generally settled on the range of strength given by Lister, to wit, from two and one-half to five per cent. of the acid, but the application of laboratory tests does not apparently accord with this conclusion. For instance, in an article by Delacroix[1] it is stated that ten per cent. of carbolic acid is required to destroy bacteric life, and in the very careful and much to be admired investigations of Koch[2] it is likewise recorded that one per cent. solutions of carbolic acid are necessary for safe or sure disinfection, and that the anthrax spores were destroyed in a four per cent. solution only after three days, and in a five per cent. solution only after two days' immersion. These statements have been widely quoted, and have much embarrassed observers by their variance with clinical work, but on reference to the articles themselves, and particularly to that of Koch[3] "On Disinfection," published in the *Reports of the Imperial Board of Health* for 1881, there will be found a reason for the discrepancy. It consists in this, that the experiments have properly been conducted upon the *spores* of the anthrax bacillus as being the most resistant to disinfectants of all such micro-organism. These spores are much more difficult to affect than the bacilli themselves. To show the influence of weak solutions upon the bacilli themselves, a number of tests were applied by Koch, by soaking silk threads in the juice expressed from the spleen of a mouse affected with anthrax bacilli, and then wetting them with one, two, three, and five per cent. solutions of carbolic acid for periods varying from two, five, ten, fifteen to twenty-five minutes; after these had been placed in a gelatine culture-glass, no signs of development occurred, showing that all life had been arrested. In the several preparations, however, of the same impregnated threads which had not been dipped in the carbolic solutions, there were to be found in the gelatine culture-glasses marked development of bacilli and even of spores. Again, a one per cent. solution of

[1] Archiv f. Experimentelle Pathologie, Bd. xiii. hft. 3 and 4, 1881.
[2] Koch, p. 242.
[3] Mittheilungen aus dem Kaiserlichen Gesundheitsamte, Berlin, 1881.

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carbolic acid with an equal quantity of anthrax blood injected into a second animal proved innocuous, but a one-half per cent. solution failed to neutralize the poisonous blood. Similar observations were carried on in respect to less obdurate micro-organisms, including the micrococci found in septicæmia; and from a large experience gathered in this manner Koch formulates the statement that carbolic acid in one to five per cent. watery solution is a good disinfectant for those organisms which have not passed into the *Danerform* or the condition of spore growth; and that 1 part to 400 of water, *i. e.*, ¼ per cent., must be *permanently* present to control life in the bacteria met with in wounds. Note carefully here the use of the words permanently present, and it must also be remembered that to produce this condition stronger solutions are of necessity to be employed.

More recently these experiments have been repeated, with a corresponding result, by Dr. Sternberg, of the U. S. Army, who has found, by the test of flask culture in reference to carbolic acid, that a 0.2 per cent. solution of this acid would so act on septic micrococci as to prevent development, but that a stronger solution was required for the micrococcus of ordinary pus. This observer, reiterating the remarks of Koch, that the resisting power of reproductive spores is far greater than that of bacterial organisms in active growth (multiplication by fission), says that the quantity of carbolic acid to be used as a germicide shall not be less than five per cent., for it is necessary, he states, to keep on the safe side, since we do not know whether all of the pathogenetic bacteria form spores or otherwise.

These considerations, which might be extended by debating more at length the steps of the various experiments, or by quotations from the observers, are sufficient to explain the satisfactory results that follow the present use of carbolic acid in the treatment of wounds, and to show us that the antiseptic has, in the main, hitherto been rightly used. In looking further for causes of error, some may perhaps be found in the imperfection of the dressings. Tests of the strength of the gauze employed revealed to me in January, 1880, that the strength of this part of the dressing varied much with its age. Gauze impregnated after Lister's formula, and kept in a tight box, wrapped up in rubber cloth, gave, at the end of three months, 1.44 per cent. of carbolic acid, and another specimen, similarly prepared and preserved, showed, at the end of three weeks, 1.82 per cent. These observations have been confirmed by Kopff, who found, on the second day after gauze had been impregnated, according to Lister's and Brun's method, that the former contained 2.61 per cent., and the latter 5.62 per cent. In the gauze sold in the shops, only one-half per cent. of carbolic acid was found. The gauze, when used, therefore, should be freshly prepared, for which purpose Brun's formula is the best:

℞.—Resin,	400 gr.
Carbolic acid,	100 gr.
Castor oil,	80 gr.
Alcohol,	2 litres.

Another possible cause of failure in an antiseptic dressing is encountered in the catgut ligature. Made, as it is, from the intestine of a sheep, it is not to be wondered at that the possibility of infection thereby should have been considered. Few, however, have been the facts that confirm such a suspicion. Koch calls attention to this, and De Lauti[1] more recently repeats this caution, and quotes Zweifel, of Erlangen, who accused the catgut of being a cause of infection in wounds. Kocher, of Berne, also furnishes a case where apparently the septicæmia was due to this cause; and Volkmann reports two cases of malignant pustule from the inoculation by means of anthracized catgut.[2] In investigating this point, Koch has found, by careful experiment, that solutions of carbolic acid in oil or alcohol are absolutely inert in respect to their action on bacteric life, either on the spores or bacilli. He took solutions of one and five per cent. of carbolic acid in oil, and also pure oil itself, and tested them with the anthrax bacilli and other micro-organisms, and found that bacteric life was arrested in the pure oil at the end of six days. The same took place in each of the carbolized solutions. The same, moreover, occurred in the several experiments, where the bacilli were exposed to the air on gelatine. In other words, no influence was exerted by carbolic acid when mixed with oil. The bacilli lived as long in oil and oily solutions as in the condition of culture. When the *spores*, however, of the anthrax bacilli were introduced in the carbolized oil solutions, reproduction could be accomplished after three months' immersion. The same results were met with in oily solutions of thymol and salicylic acid.

In explanation of the antiseptic action of carbolized oil as a wound dresssing, Koch, however, remarks that "When it comes in contact with substances containing water, as, for instance, the tissues of the human body, wounds, etc., then it undoubtedly gives up part of the acid to these, and in this way an antiseptic effect may be obtained. But this holds good only in cases where aqueous fluids come in contact with the oil. In all other instances, where dry substances, such as silk, catgut, instruments, etc., are to be disinfected by carbolic oil, not the least antiseptic effect is to be expected, even upon the most vulnerable micro-organisms." These investigations, it may be added, have been fully confirmed by those of Wolfhügel and Knowe in the same volume of reports. Kocher, of Berne (already quoted), also made sundry experiments bearing on this point. This surgeon placed ordinary catgut, with all the customary precautions, in sterilized fluids, which became turbid from bacteric development within twenty-four hours. He also found that if the catgut were steeped for twenty-four hours in the oil of juniper, and kept in ninety-five per cent. of alcohol, it would not develop bacteria in sterilized fluids.

I do not know of any experiments that will determine whether the chromic acid used to render

[1] Arch. Gén. de Médecine, March, 1883. "Les devices Evolutions des Imements Antiseptiques."

[2] Deutsche Zeitschrift f. pract. Med., No. 18, 1877.

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the catgut ligature more durable makes them at the same time aseptic, but we have information relative to sulphurous acid, which will be somewhat startling to the surgeons in this city, who have relied upon this gas as a proper disinfectant for their contaminated hospital wards. Two investigators, Koch and Wolfhügel, pronounce decidedly against sulphurous acid in gas, and in watery solutions as a disinfectant, *i. e.*, as an arrester of bacteric life. Koch says no real value can be claimed for it, and in none of the experiments conducted with it did it succeed in destroying all the germs present. The reliability of the tests of Koch and his assistants should attract attention to this point, as not only is this agent largely employed here in hospitals as above alluded to, but it is likewise recommended to the public by our health boards for disinfection after scarlatina, diphtheria, and other contagious diseases. I may remark, in passing from this portion of my subject, that the most reliable disinfectant for closed spaces was presented by bromine, and ranking a little lower was chlorine, the less expensive. Returning to the catgut, it must be admitted that, while thus open to the suspicion of a septic agent, yet the daily experience of surgeons has taught that its principal defect was in its unsatisfactory solubility. Since the addition of chromic acid and sulphurous acid to it, its durability in the tissues has been too much increased, and though the latter acid has permitted the catgut to be kept in a dry state and the oil thus avoided, yet I have found that it will not dissolve for twenty or thirty days, and that it often acts as a foreign body. Weakening both the acids has improved it somewhat, but my experience in this line has not been sufficient to speak yet with positiveness.

The probing of scientific research has in this way revealed to us some of the weak points of the carbolic dressing, but notwithstanding this and the earlier condemnation of the spray by Trendelenburg, Bruns, Mickulicz, Wernich, Duncan, and others, a verdict which is, however, not accepted by Lister, Nussbaum, Rydygier, Shiene, and their followers, Lister's dressing has remained until very recently the best for surgeons to employ, though other antiseptics, and notably iodoform, have given very satisfactory results in other hands. The volatility of the former antiseptic, and the toxic properties of both those named were decided disadvantages. Very lately an old remedy has appeared in this *rôle* of an antiseptic. This is the corrosive sublimate or the old bichloride of mercury—the mercuric bichloride of the newer nomenclature.

My first experience with this salt as a wound-dressing was obtained after reading an excerpt from the article of Delacroix, in which it was stated that corrosive sublimate in the proportion of one part to 2525 parts of water was an effective germicide—being 250 times more powerful than phenol or carbolic acid—with this imperfect datum I used it in the spring of 1882, in one part to 2000 of water as a dressing to three compound fractures of the thigh and six of the leg, with very satisfactory results. So much so that when I resumed my service in the New York Hospital, in November last, the dressings were continued, but with some slight modifications; these were first, that it was found that the strength was insufficient—active bacteric life being at times found under the dressing—and also from the fact that a perusal of the large experience of Kümmel and Schede, of Hamburg, showed that a stronger solution was required, and that it was free from the risk of toxic effects. For of over two hundred cases presented by Kümmel, in only two were there any constitutional symptoms observed, and then only as a slight salivation. This surgeon says of the sublimate dressing, that the healing of wounds is accomplished with a certainty and uniformity unknown under the strictest Lister dressing; and in 212 extensive wounds, as recently treated by the sublimate solutions and peat dressings by Esmarch and Neuber, who recommend it strongly, there was no poisoning and only 3 deaths. In this number were 30 major amputations, 32 resections and osteotomies, 5 herniotomies, 14 cases of nerve-stretching, etc., and in only 11 cases was the dressing changed more than once. Bergmann, whose experience with the remedy has also been large, also lauds it. My own observation of the efficacy of the sublimate dressing, after I had properly achieved the correct method of using it, is yet comparatively slight, embracing four cases of necrosis of the foot and tibia; one amputation at the hip-joint; one amputation of the thigh; one amputation at the knee; one amputation of the leg; one amputation of the breast; two removal of tumors; one fixation of a movable kidney; one extensive laceration of upper thigh—died twelfth day of septicæmia; one subdeltoid bursa; three compound fractures of leg; with recovery in all except the case above noted. In two of the compound fractures, an aseptic condition was not preserved; in one of these the solution was too weak—1 : 2000; in the other a 1 : 400 peat dressing was used, although, by error, solutions of 1 : 100 were several times resorted to. No special local effects were produced beyond, in one instance, slight pustulation of the adjacent skin; no constitutional effects were noticed in any case.

Let me hastily indicate the mode of employment of this dressing. Carbolic acid solutions are used by Neuber, Kümmel, and Bergmann for the spray and for the instruments, and sometimes for washing out the wound. The sponges and compresses are wet with a solution of the sublimate, 8 grs. to the pint (solution No. 1). Silk, if used for sutures, etc., is dipped for two hours in an 80 gr. to Oj solution, and then permanently kept in the 80 gr. solution. Catgut, as used by Kümmel, is made by immersing it in an 80 gr. to Oj solution for twelve hours, and then it is wound on bobbins, and kept in an alcoholic solution of twenty grains to the pint, with one and a half ounce of glycerine added.[1] The gauze is prepared by immersion in a solution of 20 grs. to the pint of alcohol, with ℥iss of glycerine. Drainage is accomplished by rubber tubes, or by spun glass, twisted or plaited. If sand is used as an ab-

[1] This catgut dissolves too quickly in a wound. Some recently used proved more satisfactory where—after the corrosive impregnation had been secured—the gut was dipped for two hours in a 1 to 1000 chromic acid, then dried, and kept.

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sorbent, after being heated in a crucible it is mixed in the proportion of 1 lb. to 3j of sublimate, dissolved in ℥ijss of sulphuric ether. The sublimated sand is put in thin cotton bags, of various sizes, from 12 to 40 cm. square, which have been frequently washed with green soap and soda, rinsed, and finally dipped in the 8 gr. to the Oj solution. Peat, sawdust, and other absorbents are also employed,[1] according to the judgment of the surgeon. It has been found, in my wards, that while pure sawdust has absorbed readily, yet a disagreeable, sour odor was often noticed, even where the underlying wounds were doing perfectly well.

A few words more will complete these necessarily incomplete remarks. The experiments of Koch evidently excited the surgeons of Hamburg, Würzburg, and Kiel to the use of the mercuric chloride as a surgical dressing, and as the results of this able investigation have not been very widely disseminated on this side of the Atlantic, I beg to summarize them here: After applying a number of tests similar to those employed in connection with a number of so-called antiseptics and disinfectants (a partial list of which is here appended—Table I), he found that simply moistening the anthrax spores (the most resistant of all, it will be remembered) with a solution of 1 part of corrosive sublimate to 5000 of water, destroyed them thoroughly and immediately; and the destruction would equally happen if they are immersed for a longer time in solutions as weak as 1 to 20,000. He then says that the sublimate is the only known disinfectant which succeeds by a single application of a few minims of a solution of sublimate of 1 part to 1000 in destroying the most resistant micro-organisms. He also furnishes us with a test as to the strength required in a wound dressing. There should be present in a dressing an excess of corrosive sublimate equal to 1 part to 5,000; this will be readily recognized by leaving a thin strip of polished copper for half an hour in the dressing; if the excess is present, an amalgam will show itself; this seldom occurs in a 1 to 10,000 solution.

Naturally with so potent a bacteric arrester, the idea comes into birth—Cannot the internal administration of the remedy be utilized in germ diseases? Koch's experiments on anthracized rabbits by injecting sublimate solutions, however, were negative, Sternberg, estimating the blood in an adult of one hundred and sixty pounds to be twenty pounds, ascertained that the quantity of corrosive sublimate required to affect this amount of blood would be three and one-half grains, and believes that although one grain per diem is the maximum quantity which could be administered for several days, that a cumulative effect might be produced by its use sufficient to exert some restraining influence on the development of micro-organisms within the system.

The annexed tables, taken from Koch and Sternberg's papers, give an interesting *résumé* of the germicidal power of a number of agents, some of which have wrongly been relied upon:

TABLE I (FROM KOCH).[1]

= indicates life destroyed totally

Sublimate corrosive, 1 per cent., in water, destroyed all bacteric life in	1 day.
Permanganate of potassium, 5 per cent., in water, destroyed all bacteric life in	1 "
Permanganate of potassium, 1 per cent., in water, had no effect at end of	2 "
Osmic acid, 1 per cent., in water,	1 "
Turpentine, oil of,	5 "
Chlorine water, freshly made,	1 "
Bromine, 2 per cent.,	1 "
Iodine water,	1 "
Chloride of lime,	5 "
Chloride of iron,	6 "
Iodine in alcohol, 1 per cent., hindered growth only.	
Arsenic, 1 per cent.,	10 "
Sulphurous acid water, very slightly efficacious.	
Sulphuric acid, 1 per cent., growth hindered in	10 "
Quinine, 1 per cent.,	10 "
Boracic acid, 5 per cent., practically unreliable—spore growth only hindered in	61 "
Borax, 5 per cent., no effect at end of	15 "

TABLE II (FROM STERNBERG).[2]

Germicide Value of

Mercuric bichloride,	one part in 20,000
Potasssium permanganate,	" " 833
Iodine,	" " 500
Creasote,	" " 200
Sulphuric acid,	" " 200
Carbolic acid,	" " 100
Hydrochloric acid,	" " 100
Zinci chloridi,	" " 50
Tr. ferri chloridi,	" " 25
Salicylic acid, *dissolved by sodium borate*,	" " 25
Boracic acid,	No value.
Sodium borate, sat. sol.,	No value.
Sodium hyposulphite,	No value.

(For the discussion elicited by this paper, see p. 502.)

CARCINOMATOUS OSTEOMA OF THE FEMALE MAMMA.

BY SAMUEL W. GROSS, M.D.,

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MRS. ——, seventy-four years of age, and the mother of seventeen children, discovered, in May, 1880, a tumor as large as a pea in the left breast, which gradually developed some of the signs of scirrhous carcinoma, such as extreme hardness, retraction of the nipple, and lancinating pains, without, however, deep attachments or involvement of the axillary glands. The entire breast was removed,

[1] The absorbing power of—

Turf is,	80 parts water.
Sawdust—pine,	55 " "
" cedar,	44 " "
Bran,	23 " "
Sand,	14 " "

[1] Mittheilungen aus dem Kaiserlichen Gesundheitsamte, Berlin, 1881.

[2] Amer. Journ. of the Med. Sciences, April, 1883.

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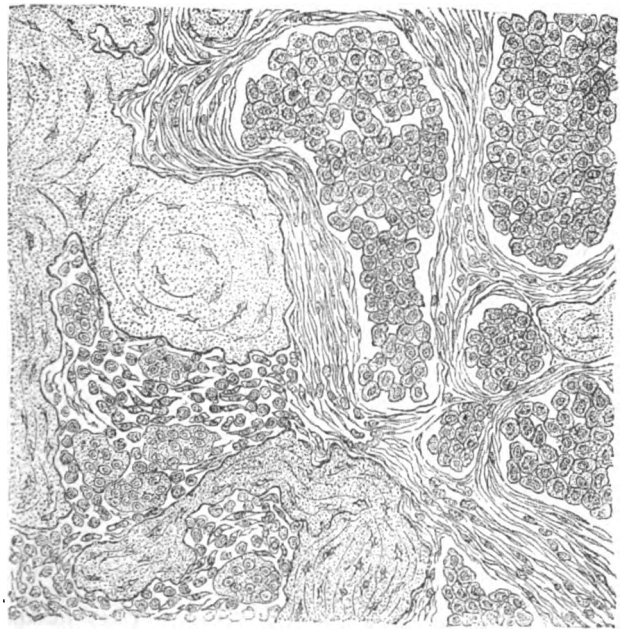
on the 10th of November, by Dr. Hunter McGuire, of Richmond, Va., who found a bony tumor loosely embedded in the organ, which he kindly presented to me.

The neoplasm was almost spherical, nodular, densely hard, and inelastic, and enclosed in a connective-tissue capsule, through which it was thoroughly isolated from the surrounding tissues of the mamma. On section, which could only be made with a saw, it measured three centimetres and a half in diameter, and the cut surfaces presented a pale, granite-like appearance, with white islets of fibrous tissue, which constituted about one-sixth of the entire mass, including a peripheral margin one millimetre in diameter for about one-half of its circumference.

Minute examination of sections treated with hydrochloric acid, conducted by Dr. H. F. Formad and myself, disclosed—as is represented in the accompanying drawing, made with the aid of the camera lucida, and kindly furnished by Dr. Formad—an osseous framework, the meshes of which were filled partly with a lymphoid tissue containing giant-cells, and representing young bone-marrow, and partly with glandular tissue undergoing carcinomatous transformation or completely converted into typical carcinomatous structure, *i. e.*, an alveolar fibrous stroma, containing cylinders or plugs made up of epithelial cells. At rare intervals the acini were normal.



The tumor was evidently, in the first instance, a fibroma containing glandular elements, or an adenoid fibroma, which was gradually being transformed into an osteoma, when the irritation of the plates of bone excited atypical growth of the cells of the acini, through which carcinoma was engrafted upon it. The presence of a fibrous capsule, whereby the neoplasm was isolated from the remainder of the mamma, was of itself sufficient to exclude the idea of primary osteoid carcinoma; and this view is strengthened by the freedom from local recurrence and invasion of the axillary glands, as the patient remains well two years and four months after the operation.

As I have pointed out in the chapter on Fibroma in my *Practical Treatise on Tumors of the Mammary Gland*, ossification is a very uncommon transformation of a fibroma; and I may add that, as far as I know, the specimen now described is unique.

1112 WALNUT STREET, March, 1883.

MEDICAL PROGRESS.

INJECTION OF PEROSMIC ACID.—PROF. WINIWARTER reports the case of a man with a soft sarcoma in the right side of the neck as large as a baby's head, and adherent to the vessels and nerves of that region. As it could not be operated upon, Prof. Winiwarter decided to practise injections of perosmic acid. For fourteen days he injected daily about three drops of an aqueous solution (1 to 100) of the acid, at the end of which time the tumor was completely broken down. The broken-down parts mixed with sero-pus, were evacuated by an incision, which rapidly cicatrized. One month after treatment was begun there was no trace of the tumor. The skin was intact, and there were no symptoms of local inflammation. This treatment was afterwards adopted in a similar case of sarcoma of the shoulder, in a number of cervical tumors, in cervical adenitis of scrofulous origin, etc. It was also employed in glandular tumors of a carcinomatous nature. The dose in some cases was as much as half a syringeful. Several years ago Dr. Moore used acetic acid in similar cases in the Middlesex Hospital.—*Gaz. Méd. de Nantes*, April 9, 1883.

TOTAL BLINDNESS FROM CONCUSSION OF BRAIN.—SURGEON A. PIERSON, M.R.C.S., records the case of an Indian cavalryman who fell from his horse while on parade, and sustained a concussion of the brain. From the first his eyes were closed, and he could only partially open them, the orbiculares being both firmly contracted. There was great pain in the head, and the pupils were found to be contracted. Photophobia prevented ophthalmoscopic examination. When he was able to open his eyes, it was found that he could only distinguish objects very imperfectly. This latter condition increased rapidly, and the patient finally became totally blind. On Jan. 1, 1883, eight months after the accident, he was still totally blind, and his general state bad. Mr. Pierson diagnosticated hemorrhage from rupture of a vessel in the pia mater, occurring about the position of the optic commissure, with subsequent inflammation around the clot, and disorganization of the nerves.—*Proc. N. W. Provinces and Oudh Br. Brit. Med. Ass.*, Feb. 1883.

DIAPHORETIC TREATMENT OF PUERPERAL ECLAMPSIA WITH HOT BATHS.—DR. CARL BREUS, assistant to the clinic of Prof. Braun, in Vienna, in an article in *Archiv f. Gynäkol.*, Bd. xxi. Hft. 1, 1883, strongly advocates the treatment of puerperal convulsions by immersing the patient in baths of a temperature of 100° F. Details of sixteen cases are given, in thirteen of which the convulsions appeared at or near the beginning of labor. Craniotomy was performed in two, and the forceps used in four of these cases. In two cases, convulsions appeared in the second stage,

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with one forceps delivery. One death occurred, due to pelvic abscess and peritonitis. Chloral hydrate was freely used in many of these cases, as was chloroform inhalation. After the hot baths, the patients were immediately wrapped in warm sheets and blankets, so as to promote free diaphoresis. As regards the mother and child, the result was, as it seems, satisfactory. All of the children were born alive except the two upon whom craniotomy was performed; and one death of the mother in fifteen cases is a striking result.

MIASMATIC PROPAGATION OF DIPHTHERIA.—DR. FORSTER relates the following cases coming under observation at the Children's Hospital, in Dresden, and which, in his opinion, go far to prove the miasmatic origin of diphtheria. Tuberculous boy, æt. 6, with no infectious disease, was brought into the ward on Nov. 18, 1881. On the following day he was taken with diphtheria and was immediately transferred to an isolated ward. In the ward in which the disease appeared first, two other cases appeared on the same day, and on the 9th of May following, eleven children developed diphtheritis. Two of these died; the remaining nine recovered. Four of these last cases made their appearance in rapid succession, but the remaining seven appeared at long intervals; yet there was sufficient evidence to show that they were due to a miasmatic influence. The patients were so quickly conveyed to an isolated ward, the iron bedsteads thoroughly washed and disinfected, and the mattresses disinfected and unused for so long a time, the walls thoroughly washed and disinfected with carbolic acid, and all the precautionary measures now in use so rigidly adhered to, that it is difficult to account for the persistence of the disease. In the spring of 1880 it was necessary to repair the floor of this ward, and at that time the disease again appeared. It seems almost certain that the propagating material was concealed in the dirt deposited in the grooves of the floor, and that the constant washing of the floor and subsequent drying of the dirt, had much to do with the reappearance of the disease at intervals.—*Medizinisch-Chirur. Centralbl.*, April 6, 1883.

THERAPY OF OSSEOUS DEVELOPMENT.—DR. J. C. THOROWGOOD points out that the mere administration of the necessary lime-salts is not the only thing to be considered in striving to improve osseous development. To give a big-bellied, pale-faced child, with acid dyspepsia (as shown by sour breath, furred tongue with red papillæ showing through, appetite often voracious, and confined or irregular bowels), phosphate of lime and iron, would only make him more uncomfortable. He should have alkaline aperients, diet should be regulated, excess of starch and sugar cut off, and exercise and salt-water baths ordered; then administer the remedies indicated. Of these, soluble hypophosphite of lime and chloride of lime are most useful, given in doses of grs. ij–iij, in glycerine and water. The lacto-phosphate of lime is also valuable. Diet, however, is most important. The child must be made to eat slowly. Brown bread, oatmeal, and "second's" flour are preferable to "extra white."—*British Med. Journ.*, April 7, 1883.

IODOFORM IN DIABETES.—BOZZOLO, though at first disappointed with Moleschott's treatment of diabetes mellitus by iodoform, has recently tried it in two cases with better success. The daily dose was about grs. xxx, a much larger amount than was used in his first cases. In both cases the quantity of urine was lessened; in one mild case the glycosuria entirely disappeared; in the other, which was very severe, the sugar was diminished.—*Gaz. degli Ospitali*, Feb. 4, 1883.

CONSTANT CURRENT IN BRONCHOCELE.—MASSEI, (*Boll. delle Malat. dell' Orec.*), who has used the constant current in bronchocele, speaks of it as a remedy of high value, and draws the following conclusions: 1. The constant current, in simple hypertrophy of the thyroid gland, is a safe, speedy, and harmless remedy. 2. It merits increased attention among physicians. 3. Statistics do not furnish results of treatment beyond simple hypertrophy; in the cystic form, colloid degeneration and nodose hyperplasia, it is a more efficacious means than electrolysis. Massei uses from six to ten elements during a period of six to ten minutes.—*L'Imparziale*, March 30, 1883.

BROMIDES IN NAUSEA AND VOMITING.—DR. CHERON (*Archives de Toxocologie*) has found that great benefit results from the administration of bromides in an effervescing mixture in the persistent nausea and vomiting so often seen in women with uterine affections. His formula is: 1. Bicarb. potass., grs. xxx; water, f℥ij; bromide potass., grs. xxx.—M. 2. Citric acid, ℥j; water, f℥iv; syrup, f℥x.—M. S.—Add a teaspoonful of No. 1 to a tablespoonful of No. 2, and drink immediately. This dose may be repeated every half hour or hour, the quantity stated in the above formula being the maximum *per diem* amount. In localized pelvic peritonitis, this mixture often arrests the tendency to vomit, even in the acute stage.—*Medical Times and Gazette*, April 7, 1883.

NEW PORRO OPERATION.—On the 28th of March, PROF. PORRO performed another operation, at the St. Catherine's Obstetrical Hospital, of amputation of the gravid uterus by the Porro-Cæsarean method. The patient was a primipara, and near the termination of the pregnant state; there was great rachitic deformity of the whole skeleton. The child was healthy and well formed. On April 3d the patient was doing well—maximum temperature up to that time was 100.4°.—*Annali Univers. di Med. e Chirurg.*, March, 1883.

CASTOR OIL AND GLYCERINE AS A PURGATIVE.—MR. SLOPER recommends a combination of glycerine and castor oil, in equal proportions, as being an efficient purgative. The best form is that of a semi-solid, of which a small teaspoonful is an efficient dose; its effect seems lasting, and it does not need continued renewal. The compound may be flavored with lemon, almond, or any other agreeable flavor.—*Lancet*. Feb. 10, 1883.

EPILEPTIFORM ATTACKS IN STRANGULATED HERNIA.—M. CH. LIÉGEOIS reports a case of strangulated inguinal hernia in which the only symptoms were epileptiform attacks, repeated at short intervals. These could not be accounted for in any manner, and it was only when the patient was undressed that the real state of affairs was discovered.—*Gaz. Méd. de Nantes*, April 9, 1883.

PILOCARPIN IN ASCITES.—DR. MAX RICHTER has had excellent results, in two cases of hepatic ascites, from the use of muriate of pilocarpin in doses of gr. ⅙ to ¼ twice a day. He gives whiskey in small doses to counteract the weakening effect of the pilocarpin. In the two cases referred to, it was necessary to tap several times, but the persistent use of the pilocarpin effected a cure.—*San Francisco Western Lancet*, April, 1883.

A THIRD LORETA OPERATION.—The third patient upon whom Prof. Loreta performed his operation of digital divulsion of the pylorus, died of collapse in thirty-six hours. The case was almost hopeless, however, before the operation was begun.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, MAY 5, 1883.

LEGISLATION AS TO COLOR-BLINDNESS.

THE question of color-blindness in railroad and steamboat employés continues to be a living and very lively issue, between scientists and humanitarians on the one side, and politicians and thousands of their "constituents" (or *voters*), who object to being regulated, on the other. Dr. Jeffries and his co-workers, not only have to fight hard for every inch of advance, but find it no easy matter to hold the ground that they have gained. Two States only have been subdued, and the enemy have succeeded in abolishing the law in Connecticut, and are now advancing in force upon Massachusetts. The following list of questions addressed by the counsel representing the employés, before a Committee of the Massachusetts Legislature, to railway managers, will show the position taken:

"First, Is not a thorough and practical examination of employés for color-blindness and other defective sight on the signals in actual use a sufficient test for such qualifications?

"Second, If an employé is able to discriminate all forms and colors used in your signals, and is competent in all other respects, do you not consider him qualified for railway train service?

"Third, is not the pecuniary interest of railway corporations in the safety of their passengers and trains an inducement for them to be certain of the ability of their employés to distinguish signals?

"Fourth, In your judgment is there a necessity for periodic examination of regular employés for color-blindness or defective sight?

"Fifth, What, if any, accident has occurred on your road, or to your knowledge elsewhere, by reason of color-blindness or defective vision."

It has been shown so often that a color-blind person may, under favorable circumstances, make very correct guesses at the color of these flags and lanterns, by means of the difference in the *intensity* of light in which they appear to him, that the subject seems almost too trite to be mentioned. A red light will appear darker than a green one to a red-blind person, while a green one will appear darker to a green-blind. "Every modification of the intensity of the light is, for the color-blind, a change in color," and may enable him generally to decide correctly, particularly as to familiar objects. This is well illustrated by the case of an engineer, who, when tested with flags in a room ninety feet long always answered correctly, but when the flags were taken to a greater distance outside, where they could be seen from a window, and the red one was placed in front of some foliage, unhesitatingly pronounced it green. Holmgren pointedly asks, if any railroad president would be willing to take the responsibility of running a train if the condition of his sight were such that a feeble light meant danger, a medium one caution, and a strong one "road clear." What is needed, is the quick and certain perception of colors that only normal color-sense can give.

As to trusting to the voluntary action of railway corporations—if the fact that not one in the country paid the slightest attention to the subject until stirred up to it by Dr. Jeffries, were not a sufficient answer, some of their unguided efforts in this direction would make it complete enough. When Dr. Carmalt showed his orders to the President of the New Haven and Northampton Railroad, he was informed that the employés had all been carefully examined by the assistant superintendent, and there was not a color-blind man on the road. Dr. Carmalt, however, proceeded with his work, and found nearly double the average number of color-blind. It was found in Connecticut that complaints were as loud and numerous against the "flag and lantern test," as against the methods of the scientific enthusiasts; and the legislature, not succeeding in devising a test that would meet with the approval of those who failed to pass it, ended the discussion by abolishing the law.

As color-blindness is in a large majority of cases congenital, and when it occurs as a symptom of disease is usually accompanied by other defects of sight, periodic examinations, with reference to it alone, may be much less essential than the original testing. But railroad men, like the rest of mankind, are certainly subject to diseases resulting in color-blindness and also in those defects of vision which entirely unfit them for their work; while,

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unlike those engaged in many other occupations, the engineer may keep his secret locked up in perfectly normal-looking eyes until it manifests itself in disaster. A man who applied at the Wills' Hospital with optic atrophy had scarcely vision enough left to drive a cart through the streets in daylight, but had been running express trains, filled with hundreds of confiding passengers, at night, until he could no longer bear the strain of mental anxiety, and was relieved at his own request. It was enough to make each particular hair stand on end to hear him tell of his experience.

The assertion that no accident has, in this country at least, been positively known to have resulted from color-blindness, is considered a very strong argument. We have not been advised as to just how many crushed victims must be unmistakably offered, before it will be in order to take measures to prevent further sacrifices; but it would seem that, to an unbiassed mind, it would be sufficient to show that such things are not only possible, but highly probable. The papers recently reported the case of a man who was frozen to death while driving on a bitter cold night, but reached home without damage to horses or wagon, and with the reins clutched in his stiffened fingers; still, a nervous traveller would scarcely care to trust a driver of that kind. The statement, however, that no accident can be proved to have resulted from color-blindness is not correct, as can be shown, in one case at least, by the following extract from the report of the Railroad Commissioners of Connecticut for 1881: "A few years ago, a collision occurred near Norfolk, Va., between the tugboat Lumberman and steamship Isaac Bell, resulting in the loss of ten lives. A coroner's inquest was held, without definite result; the general impression being that one or the other of the pilots was drunk. There could be no proof of this, however, and the pilots were released. The pilot of the tugboat Lumberman was examined by the surgeon of the Marine-Hospital Service during the current quarter, and found to be color-blind. A rumor has reached the Marine-Hospital Bureau that the pilot of the Isaac Bell is also color-blind." Mr. Thos. F. Wilson, in a communication to the Chicago *Railway Review*, states that he has kept a record of accidents to trains and vessels for some years, and gathered all the information he could in reference to them, and is convinced that a large proportion of them were the results of color-blindness. There is good reason to believe that the famous Norwalk disaster was due to the same cause. It was proved to the satisfaction of the jury and of all concerned that the engineer looked for the signal and thought he saw it; and, in the entire absence of any other plausible theory, it has been thought that he mistook the green foliage of a cedar tree, trimmed nearly to the top, for the red ball that it was customary to display when the draw was closed. This same engineer had met with a serious accident several years before, and after subsequently meeting with several minor mishaps, he put an end with his own hand to a life that seemed to him to be the sport of an adverse fate. Is there not a high degree of probability that two minutes with Holmgren's worsteds would have prevented all this tragedy?

The Massachusetts Legislature passed a law in 1881 compelling railroad companies to have their employés examined for color-blindness and other defects of vision, and requiring re-examination at least every two years. The law did not define the test, but the worsteds have been used. An effort is now being made to induce the Legislature to forbid the use of any other tests than railroad signals, and to do away with re-examinations. The committee to which the subject was referred has reported against the former proposition, but in favor of the latter. Even should the action of the Legislature be favorable, however, it must take the chances of a veto, which the well-known ocular defect of the present Governor makes more than probable.

INHALATION-TUBERCULOSIS.

GREAT stress is laid by those who favor the view that tuberculosis is an infectious disease, upon the results of the so-called inhalation experiments, priority in which is claimed by TAPPEINER, of Meran, who first made them in 1877. Recently, in consequence of Spina's failure to give them due consideration in his work on tuberculosis, Tappeiner has republished his results in an open letter to Spina (*Wiener med. Presse*, March 18th). Tappeiner says that in his first four experiments he used sputa from fresh tubercular cavities, rubbed up with a good deal of water into a thin emulsion, and permitted dogs to inhale it from a steam atomizer, the animals being enclosed in airy cages and protected from dust.

Tappeiner does not describe the exact method and conditions of the remaining experiments, but made in all 31 inhalation-experiments with dogs, of which 18 were true infection experiments with tubercular sputum, 8 control experiments with other substances, and 5 experiments with tubercular sputum, with a view to determining the period of incubation. In all the 18 experiments the results were positive; in 17 there was tubercle in both lungs and pleura; 4 times in addition to the tubercles in the lungs there were tubercular nodules in the kidneys, spleen, and liver, and in 3 instances in addition to the tuberculosis of the lungs there were also cheesy foci and small cavities; in one instance, only, there was typical disseminated desquamative pneumonia.

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Of the 8 control experiments, 2 were made with calves' brain treated in the same way as the tubercular sputum; 2 with the suppurative expectoration of a chronic bronchitic patient, and 4 with cheesy pus from lymphatic glands. All of the 8 control experiments were completely negative, there being no trace either of tubercular nodules or of irritation of the lung by the finely divided particles.

In the five control experiments in which sputum from tubercular cavities was inhaled, the animals were killed in 10, 13, 14, 19, and 20 days after the beginning of the inhalation, and none of them showed any trace of tuberculosis or other symptoms of irritation of the lung, although larger quantities of sputum had been inhaled. From these experiments, Tappeiner concludes that the period of incubation cannot be less than 20 days, and since, also, all the dogs killed in more than 24 days from the beginning of the experiments, except the single one with desquamative pneumonia, were tuberculous, it would appear that the inoculation effects developed themselves within the short period of 4 days.

The results of these experiments favor the view that tuberculosis is an infectious disease, but less conclusively than at first appears. For, in the first place, the control experiments are not numerous enough; and secondly, the material used was not in all instances of the right kind to satisfy the essential conditions. The results would have been more conclusive had calves' brain, or similar substance, been used in each instance. For in view of the fact that much of the expectoration in tubercular phthisis is bronchitic, in view of the difficulty of being absolutely certain that the cases of bronchitis from which the sputum is derived are not also tubercular, and in view of the fact that cheesy lymphatic glands are regarded by most morbid anatomists as tubercular, it is evident that all sources of error are not excluded by Tappeiner. Tappeiner does not state whether the tubercular sputum was taken from cavities after death, or whether from the expectoration of those in whom cavities were diagnosticated by physical exploration.

If these experiments could be repeated, and they should be, with due regard to the conditions named, it would seem that their results would have to be regarded as almost conclusive.

THE EFFECT OF QUININE AND SALICYLIC ACID ON THE EAR.

KIRCHNER (*Berliner klinische Wochenschrift*, p. 49, 1882) has studied the effects on the ear of those medicaments which cause dulness of hearing, tinnitus, etc. He finds that quinine and salicylic acid cause hyperæmia of the *membrana tympani*, and of the whole labyrinth, and this congestion may be so intense as to cause hemorrhagic extravasations. In this position, Kirchner is in accord with Dr. Roosa, of New York, who, as is well known, maintains that quinine has a very injurious action on the ear and eye, by reason of the vaso-motor paresis and consequent hyperæmia.

There are, however, two sides to this question. Thus, Weber-Liel, in connection with Gruber, has experimented on adult males with gramme doses (fifteen and a half grains) of quinine. They have ascertained that the temperature of the external auditory canal has been lowered, as also the general temperature of the body. They have not observed any hyperæmia of the *membrani tympani* or other parts of the ear. On the contrary, they have witnessed in five cases the disappearance of a slight degree of hyperæmia, which had existed previous to the administration of the quinine. They ascertained, also, that the maximum degree of impaired hearing was coincident with the greatest decline in temperature.

These observations, so exactly opposed, can be reconciled only by reference to the effect of the dose. Unfortunately, this important factor has been often overlooked. The quantity administered has an unmistakable effect on the results produced. This action may be formulated in a single sentence: Small doses stimulate the circulation, large doses slow the heart and raise the tension. Small doses of quinine cause hyperæmia of the ear, large doses have the opposite effect—causing contraction of the vessels and anæmia. The importance of this distinction is most obvious. As all the world knows, quinine is not the only remedy acting thus; opium, pulsatilla, ipecac, etc., similarly differ in effects according to the quantity administered.

There are other facts which throw a brilliant light on this question. Large doses of quinine, as Knapp and others have proved, cause a marked degree of anæmia of the retina, so that, finally, only the largest vessels remain visible. As these cases usually recover, the condition of the retinal vessels must be that of strong contraction.

THE RIGHT TO MAKE AUTOPSIES IN HOSPITALS.

IN THE MEDICAL NEWS of March 17, we drew attention to an English decision on this point. We were not then aware of any American case, but it seems that one was decided in 1880, in the Ohio courts.

Dr. Wm. Carson, of the Cincinnati Hospital, was prosecuted by a Mrs. Farley, for withholding the dead body of her husband, and for making a post-mortem examination upon it, without her consent. Damages were laid at five thousand dollars. The defence alleged that the incision—it was a case of abscess of the liver—was made during life, but

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moved the arrest of the case from the jury, as, even if the allegation were true, there was no violation of any legal right, and no cause of action could accrue.

Both Court and counsel agreed there were no precedents to guide them, but the Court granted the motion on the following grounds. While the taking of the clothing of a corpse is larceny, there is no right of property in a corpse itself. Even admitting that the defendant did injure the body, it is an injury for which there is no legal redress; especially as it was shown that only the purest and best motives actuated the defendant.

An appeal was taken, and the Superior Court sustained the decision of the lower Court, though on somewhat different grounds. The duty as well as the right of a wife to bury a husband's body is recognized by the law, and this carries with it the right to its possession in a fit state for burial. The allegation that the body was withheld was not sustained, for the patient died in the night, and the widow was notified by seven o'clock A. M., and the body was delivered on application. The post-mortem examination if made, as alleged, did not disturb the decency of death. "The privacy of the examination, and the confidence involved in the relation of the defendant as attending physician, freed the act from all indignity. It was not a mutilation of the body, or dismemberment or removal of any part or organ; and for all the purposes of fit and proper burial, the body was left without disfigurement. The right in the widow to possession for those purposes was not, therefore, infringed upon." The Court held that the lower Court should have directed a verdict for the defendant upon the evidence, rather than have taken the case from the jury.

We have referred to the case at some length, since it is of very great practical importance to hospital physicians, and it behooves them carefully to note the points involved in the decisions.

THE CONTROVERSY OVER THE CODE.

ONE of the saddest phases of the Code controversy now waging in New York is the personal feeling evoked. We are the more pained at this development, since it has led to the public expression of bitter animosity in quarters, where we had every reason to expect that only the most fraternal feelings existed. At a recent meeting of the "New Code" advocates, the proceedings of which we find reported in the *New York Herald* of the 21st of April, 1883, one of the speakers characterized the action of a colleague at the late meeting of the Academy of Medicine, as "a disgraceful, abominable trick, and only fit to be undertaken by a low, ward politician." He further stated that "for the rest of my life, I can only treat Dr. ——— with required civility." The offence committed consisted in the introduction of a resolution into the Academy, which, in general terms, may be stated as having for its object the maintenance by the Academy of its own by-laws, including the National Code of Ethics. It was further charged that the meeting of the Academy was packed with the friends of the National Code.

We are deeply grieved that a member of a liberal profession should feel compelled to use such expressions against a colleague, and we urge now upon all parties the exercise of forbearance. Honest differences of opinion should be permitted without questioning the motives of those who entertain them. Whether one's adhesion be to the old or to the new Code, his position is entitled to respectful consideration, and vituperation will not weaken it.

There is another aspect of this controversy which should not be overlooked. The New Code is very explicit on the impropriety of physicians permitting their opinions on medical questions to be placed before the public through the medium of reporters or interviewers, yet its advocates apparently do not feel bound any more by it than by the National Code, and they freely place their views on the controversy at the disposal of the daily papers. On the other hand, we are happy to observe that the upholders of the National Code, with a due regard to the dignity of the profession, have uniformly refused to allow themselves to be interviewed by newspaper reporters. This agitation in public of a purely medical controversy is extremely harmful to the best interests of the profession. The newspapers find in it material for the amusement of their readers, and they serve the morning meal of news and scandal, spiced with choice bits from the "doctors' war." In the language of General Grant—"let us have peace"—outside of the profession, if not in it.

ENTERPRISE IN BUSINESS.

No one objects to enterprise in business until it runs riot, when it is right that it should be checked, and that, too, somewhat sharply. Circulars are issued by the ton praising this or that preparation, or pill, or infant's food, or purgative water, or disinfectant, and each is quickly made remunerative by the endorsement of various doctors and ministers, whose signatures are a supposed guarantee of its worth.

Two classes of doctors sign such papers; first, well-known good-natured men, with weak moral spines, who advertise the medicine, and secondly, ill-known, worldly-wise men who are advertised by the medicine. There is nothing more common than for physicians to sneer at the readiness with which clergymen lend their names to every medical

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circular that is presented to them. The day for such sneers has gone by. We live in glass houses.

The last circular (only of course "to the medical profession") is made more obnoxious than usual by the lithographed signatures of four well-known New York medical men, four also well-known Philadelphians, and six irregulars, also equally divided between the two cities. The majority of these men do not need advertising. Why, then, should they place themselves in such an undignified and unethical position as to allow their names to be used by a commercial firm for its own profit?

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, April 10, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

RUPTURE OF THE TENDON OF THE QUADRICEPS EXTENSOR CRURIS ON EACH SIDE.

DR. L. A. STIMSON presented a patient with the following history: the patient is a rather small, spare man, 58 years old, who has always been healthy. Ten years ago he slipped while walking, fell backward to the ground and found himself unable to use his right leg. He had broken the tendon of the quadriceps apparently at its junction with the patella. The knee became at once painful and swollen, and he remained unable to walk for four weeks. During the following six months he walked with a cane, and noticed disability of the limb when going up or down stairs, finding himself unable to support his weight upon it when the knee was partly flexed. After the expiration of six months he discarded the cane, and considered the limb about as good as ever; he could carry a load of fifty or seventy-five pounds upstairs in the usual way, taking the steps with each foot alternately, and not aiding himself with his hands. He says the appearance of the knee differed from what it was before the injury: that there was a depression above the patella, and the anterior edges of the condyles were prominent.

Three years afterwards (1876) he broke the tendon of the left quadriceps by a similar slip and fall backward. It was treated in the Chamber's Street Hospital by rest in bed, with the limb bandaged upon a posterior splint. The knee was swollen and painful for three weeks, and more or less stiff for six months afterwards. Then he resumed work as a porter, and worked steadily until January, 1883, his right leg being all this time stronger than the left. His duties frequently required him to carry loads of fifty or one hundred pounds on his shoulder; in walking, he kept the knee almost perfectly straight, and occasionally he fell heavily, this happening whenever he slipped and bent the knee. In going up and down stairs he always aided himself with his hands on the banisters; he says he was always fearful lest he should fall, yet he carried weights, and even climbed ladders. He could not rise from a sitting posture without aid, unless the seat was so high that the knees were extended.

Early in January, 1883, the right knee-joint suppurated, from unknown cause, and he entered Bellevue Hospital. The joint was opened in the median line above the patella, drained, and immobilized. The discharge ceased about the end of February.

His present condition is as follows. Left knee: when the knee is flexed nearly to a right angle, the anterior surface and edges of the condyles are very prominent, and the patella lies below, leaving a deep sulcus above it, between the condyles, occupied only by skin and cellular tissue; this skin is rather closely bound to the condyles so that it does not move upward as freely as the patella. The patella can be raised from the condyles, and the finger passed between it and then from above to the distance of nearly an inch by pushing the skin before it. The quadriceps is atrophied to such an extent that the femur seems almost subcutaneous in front.

The power of active extension is entirely lost. Even when the leg is hanging straight down, with the knee slightly flexed, the foot cannot be moved forward in the least, except by swinging it.

Right knee: still somewhat swollen, and the soft parts indurated. The patient says that its appearance before the suppuration in January last, was almost exactly the same as that of the left knee. The quadriceps is not so completely atrophied as the left, and the patient says the right has been the better limb of the two.

He walks now with one crutch, taking short steps.

DR. R. F. WEIR said that he had just finished treating such an injury in a very heavy man who tumbled in the usual way without striking his knee, but the rupture was different from that illustrated in Dr. Stimson's case. He had met with two varieties of ruptures: one, where the tendon is torn entirely across; and the other, where only the central portion is ruptured. In his recent case, the central portion was involved, and by drawing the muscle down by strips of rubber adhesive plaster, and immobilizing the joint, he was able to get a very good result; that is, the patient was able to throw the leg forward and go upstairs without difficulty. He had seen, a few years ago, one case in a woman where the tendon was apparently divided completely across, but there was some power of extension, showing that it was not entirely separated.

In cases of ruptured quadriceps, attempts had been made to reunite the parts by sutures under antiseptic precautions, but the results had not been sufficiently encouraging to warrant us to repeat the operation. Better results and greater security had been obtained by immobilizing the joint with the posterior splint.

DR. YALE had seen a case in which the tendon had been torn and the patella dislocated laterally by the limb being caught between a cask and the side of a house. The use of the limb was impaired as long as the gentleman lived. The patella, however, made for itself a new point of adhesion at the side of the joint, and the condyles were exposed by so much as the patella had been displaced by the dislocation.

DR. POORE remarked that he had already reported a case to the Society, in which rupture of the quadriceps had taken place, and the separation was four inches, which was finally reduced to about three inches. The rupture was complete. The ultimate result was that the patient had perfect use of the limb; flexion and extension, and walks without a limp.

EPITHELIOMA OF THE EYELIDS, NOSTRIL, AND SIDE OF THE FACE.

DR. GERSTER presented a patient, 64 years of age, illustrating the final result of the removal of an extensive epithelial cancer, which had its commencement at the outer canthus of the right eye. The disease had gradually, in the course of several years, involved the upper and lower eyelids, and the entire conjunctiva, a considerable portion of the superior maxilla, and the cheek and the right nostril. When the patient first came under his observation in September, 1881, Dr. Gerster, with a great deal of difficulty, succeeded in

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exposing the eye, and found the cornea ulcerated and in part covered with cicatricial tissue. The patient was entirely unable to move the eyeball, and Dr. Gerster suspected involvement of the orbital tissue and fat. The patient insisted on getting rid of this offensive, ulcerating mass, and when Dr. Gerster had made the necessary incisions, entering the orbit, he found that the tissues occupying the posterior portions of the orbit were not involved at all. The case therefore was not so hopeless as it seemed to be apparently before the orbit was opened. The eye, all the orbital fat, a portion of the superior maxilla, of the skin of the cheek and forehead, both eyelids, and a portion of the right nostril were removed. The defect following the operation was enormous, and it was very incompletely repaired by the process of cicatrization and contraction, and finally, in January, 1882, he proposed a plastic operation, with a view to remedying as far as possible the disfigurement. To do this, he raised two large flaps from the forehead, using one for the formation of the lower eyelid and cheek, and the other for the formation of the right nostril. He cut both flaps intentionally in an oblique direction in order to make them as long as possible. A small part of the flap out of which the nostril was formed, sloughed on account of the pressure of the adhesive plaster plug placed in the newly formed nostril, which, however, looked very satisfactory.

Having obtained union of the two flaps, he still had considerable redundant pedicle. The redundant part of the pedicle used for the nostril was separated three weeks after the former operation and being attached by sutures to the skin of the forehead, served to form an upper eyelid. This subsequently was drawn deep into the orbit, thus forming a sort of lining of the roof of the cavity, and the cicatricial traction thus exerted had the effect of smoothing off the unseemly protuberance caused by the rotation of the pedicle. The redundant tissue of the other flap was also cut away, and put back into the defect caused by its original removal, where it helped to hasten the final healing of the wound. The ghastly deformity having thus been reduced to a small granulating space occupying the apex of the orbit, the patient is enabled to get along well with the aid of a small bit of black silk placed over the orbit as a protector. As yet, the disease had not returned.

DR. WEIR then read a paper entitled

SOME REMARKS ON BICHLORIDE DRESSING.

(See page 491.)

DR. GERSTER said that he had used ligatures prepared after Kocher's method, by the use of oil of juniper, almost exclusively since September, 1882, and in not a single case had suppuration undoubtedly been caused by the ligatures. As far as manipulation of the material so prepared was concerned, it was very agreeable to handle. It is hard and firm, especially if it has been kept for some time in ninety-five per cent. alcohol, which apparently has the effect of toughening the substance; it ties very nicely, and it is not absorbed too soon. He had used it for ligating the large vessels, and with excellent results. As a suture, it answered very well, and lasts longer than the carbolized suture of Lister.

He had also employed Brun's gauze in the German Hospital, the Mt. Sinai Hospital, the German Dispensary, and in private practice. The original method of preparation by the use of alcohol as a solvent made the material very expensive, and with the coöperation of the druggist, he finally succeeded in finding an excellent solvent in benzine, which during the last four years he had been using exclusively. Contrary to what was at first suspected might occur, the benzine had not affected the skin unfavorably; and the cost of the gauze prepared in this way was very considerably less.

DR. WEIR remarked that he had made experiments four years ago with benzine as a solvent, and had found, in corroboration of the statement made to him by Dr. Squibb, that the evaporation of this solvent was so rapid that it carried off with it an undue amount of carbolic acid, held in solution; therefore, the gauze and jute prepared with benzine very rapidly deteriorated, and it gradually fell into disuse in the New York Hospital and other institutions where it had been employed.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Eighty-fifth Annual Meeting, held at Baltimore, April 24, 25, and 26, 1883.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, APRIL 24TH.—FIRST DAY.

THE Eighty-fifth Annual Meeting of the Medical and Chirurgical Faculty of Maryland commenced in Hopkins Hall, Baltimore, on April 24th, at twelve o'clock; the President, DR. WM. M. KEMP, in the Chair.

After an opening prayer and the reading of the minutes of the previous meeting, the PRESIDENT, DR. WM. M. KEMP, gave the

ANNUAL ADDRESS.

After a brief introduction he spoke of the two lines upon which, from its very incipiency, medicine as a science has run—(1) the line of theory; (2) the line of observation of facts. He proceeded to show how the most important epochs in the history of medicine, when the science made the greatest advances, were periods when men have busied themselves chiefly with the careful and accurate study of facts, and have drawn their conclusions from results thus obtained. He further illustrated his point by reference to individual cases, showing how all real observation of fact has a permanent value which largely depends upon the freedom which the mind of the observer has from servile adherence to the opinions of men of great authority. No advance can be made without a proper independence of thought.

Now that the advantages offered him are so much greater than they were fifty years ago, there is far less excuse for the young medical practitioner failing to become an intelligent physician, able to think for himself, and deserving a worthy place in the profession, able even to advance it. Although after his course of study has been completed he must practise for a little while in accordance with the views he has gleaned from his college, from hospital practice, and from text-books, he should commence independent study with his first case and go on adding year by year to his resources, not only by study, but by observation.

Dr. Kemp thought that, had there been a more thorough understanding and knowledge of the crucial tests, made as to the value of vaccination as a preventative against smallpox at the time of its first introduction, of the best testings during the last fifty years, and a thorough study of their own cases by those who had any considerable experience in vaccination, the doubts thrown upon its efficacy during the last winter would have been met by much more concordant answers, and answers of such a kind from the profession as would have set the public mind more at rest.

But, notwithstanding the wonderful accuracy which is attainable by man, there are two things which should serve to keep him humble—first, his inability to grasp

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all the facts within his reach, so that a fresh observer a thousand years hence will still find fresh facts to observe; and, second, the absolute limitations of his knowledge. He can study life, electricity, etc., but remains in complete ignorance as to what they are. It is well for us to recognize these limitations, and to let our studies have the ennobling influence of filling us with a true humility, and with a true reverence for Him who knows it altogether.

Whatever a man's capacities or learning may be, whatever be his creed, there is still in him a restless longing after something higher and better. "We see not in this life the end of human actions. Their influence never dies." "Every morning when we go forth, we lay a moulding hand on our destiny." "In this world, character is in its formative state: it is a serious thing to think, to speak, to act."

REPORTS OF OFFICERS AND COMMITTEES.

After the address, routine business was resumed, during which the following items of interest were brought out: DR. W. F. A. KEMP, the *Corresponding Secretary*, proposed that the executive committee be instructed to take measures toward the reviving the county medical socities in Maryland, there being now but few.

The report of the Treasurer, DR. JUDSON GILMAN, showed the finances of the Faculty to be in good condition.

He also reported, as *Chairman of the Publication Committee*, that 500 copies of the last year's *Transactions* had been printed and widely circulated.

The *Committee on Memoirs*, through its Chairman, DR. H. M. WILSON, presented brief memoirs of Dr. W. G. Regester (who, at the time of his death, had been for twelve consecutive years Recording Secretary to the Faculty), Drs. Charles Albert, Henry Albers, and E. Cleveland Coxe, speaking in warm eulogy of them all.

DR. I. E. ATKINSON, *Chairman of the Library Committee*, reported that the constitutional amendment adopted last year by the Faculty, providing increased funds for the library, while it had not proved such a great success as had been hoped, had been of very great benefit, and that, even now, the library alone formed one of the chief advantages offered by the Faculty to its members. The present number of volumes in the library is 3,346, an increase of 277 over last year. One hundred and eight journals are taken —fourteen English, six French, three German, three Austrian, and eighty-two American.

Some articles of antiquarian value have been added in the shape of some valuable old portraits, and the first volume of the *Baltimore Medical and Surgical Reporter*, edited by Tobias Watkins, 1808, which was the first medical journal in Maryland, and the third in America.

The most important part of their report was that they had received an offer from Dr. J. S. Billings, of the library of the Surgeon-General's Office, in Washington, to take the old books from the Faculty's library that are not owned by the Washington library, and give in exchange double the amount of new books of which they have duplicates (*i. e.*, two new books or pamphlets for one old book or pamphlet). As there are between one hundred and fifty and two hundred old books in the Faculty's Library which could be so disposed of, and which are of no use here, the Committee proposed the following resolution, which was adopted:

Resolved, That the Library Committee is hereby empowered to negotiate with the authorities of the library of the Surgeon-General's Department, U. S. A., for the exchange of books and pamphlets, and to make such exchanges as, in the opinion of the Committee, will contribute to the welfare of the library.

The Committee spoke of the need for increased accommodation for the books.

The Reports of the Sections in order were then taken up.

SECTION ON SURGERY.

DR. OSCAR J. COSKERY, *Chairman*, reported on

LATE ADVANCES IN ABDOMINAL SURGERY.

He confined his report to abdominal surgery exclusive of gynæcology, choosing only gastrostomy, splenectomy, and nephrectomy.

Gastrostomy has been made most successful since the suggestion of Mr. Howse, that the process should be divided into two stages: first, opening the abdominal wall, and stitching the stomach to it by six or eight sutures; and, second, opening the stomach itself five or more days afterwards. A number of cases of gastrostomy, undertaken for various causes, were then given, and Dr. Green, of Bath, was quoted: "On referring to the medical literature of gastrostomy, I find sixty cases of gastrostomy recorded (nearly all of them in the London *Lancet*); eleven for the removal of a foreign body from the stomach; of these, ten recovered rapidly, and one died." This presents a striking contrast to the fatality of gastrostomy performed for malignant disease, the cause being that, in the former cases, the patients were in good health, and had not been subjected to the debilitating effects of cancerous cachexia and slow starvation. In corroboration of this, out of seven cases where the operation was performed for traumatic stricture of the gullet (all patients being under twenty-two years of age), two died—one on the twelfth and one on the twenty-seventh day—from inanition. These last cases do not show an advantage for Howse's operation over the old method, the operations being divided between the two, and the results being the same. In malignant diseases, however, we find his method the most successful. Of twenty-two cases by the old operation, twenty died within the week. Of twenty by Howse's method, one is vaguely stated to have died ultimately; nine within two weeks; three lived two months; one was going on well the ninth day; one discharged from hospital, doing well, on the thirtieth day; three more were living four or five months after. Dr. Green added a successful case of his own.

DR. COSKERY referred to Ashhurst's tables of ninety-seven cases, of which nineteen recovered, temporarily at least, and seventy-six proved fatal in periods varying from a few hours to three months. He had collected further statistics, raising the number to one hundred and three, with seventy-seven deaths, and twenty-four recoveries. He thought also that the prolongation of life for three months in cases of cancer was really a success for the operation.

Conclusions.—1. Gastrostomy, in its widest sense, is a justifiable operation (*a*) where there is a foreign body in the stomach, when for any reason it cannot pass the pylorus; (*b*) in cases where malignant disease or contraction of the œsophagus is progressing; (*c*) where decrease in calibre of gullet is due to inflammatory action after introduction of corrosive liquids, where it will not yield to bougie treatment. 2. The earliest possible opportunity must be availed of for the operation. 3. Incision into the stomach should not be longer than one-eighth of an inch, unless made for the removal of a foreign body, and then as small as will permit of its extraction. 4. It is most successful when performed for the removal of foreign bodies or accidental stricture of the gullet. 5. When done for obstruction to the swallowing of food, the oper-

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ation should be divided into two stages, as suggested by Mr. Howse.

The operation of resection of the pylorus, Dr. Coskery thought, was hardly within the pale of legitimate surgery—at least, it was still *sub judice*.

Splenectomy should always be regarded from two standpoints—whether for the removal of an injured or diseased spleen, or for removal when the enlargement is owing to leucocythæmia. A number of instances were reported, with the conclusion that in the former case it is one of the most successful; in the latter, one of the most fatal of abdominal operations.

Nephrectomy is an achievement of the last twenty years. A large number of cases of this operation were quoted, with the following conclusions: We are constrained to consider the operation a justifiable one. The chief difficulty is to make a correct diagnosis between those conditions of the kidney requiring extirpation in the one case, simple tapping in another, or cutting down upon and extracting a stone from the pelvis in a third.

By making the incision in the same direction as for colotomy, the operation should be as bloodless and as free from danger. When the latero-abdominal incision is made, we run about the same risks that the gynæcologist runs in a case of monocular ovarian cyst. The principal dangers in the operation seem to be any accidental adhesions and the shock consequent upon the removal of so important an organ. The method should be left to the individual operator.

SECTION ON PRACTICE.

DR. R. H. THOMAS read a paper entitled

A CONTRIBUTION ON THE INFLUENCE OF SEASON AND WEATHER ON THE DIPHTHERIA DEATH-RATE IN BALTIMORE.

Diphtheria has been endemic in Baltimore since the end of 1860, in which year it first makes its appearance upon the mortality returns of Baltimore.

Dr. Thomas regretted that it was impossible to obtain the number of non-fatal cases in the city, for the deaths bear no permanent relation to the number of cases; still the number of deaths furnish a clue to the number of severe cases.

Up to the end of 1878 the official reports gave only the number of deaths per month. Since then we have weekly reports. The difficulty of the investigation is increased by our knowing neither the date of attack, nor, within a week, the date of death. It is important to bear in mind also that even if the weather, etc., do exert a direct influence, the concurrence of other local causes will produce fluctuations independently of it. For example, other things being equal, a child attacked in a well-arranged house where there are no other children, if it be rigidly isolated, may cause no more cases; but if the disease break out in a crowded tenement-house, one case may prove a focus for a great spread of the disease. Still, before we allow that the season or weather exerts a positive effect upon diphtheria, we must insist in regard to the season, that the curve of diphtheria bears a fairly constant relation to the season or months as they recur, and that the exceptions are comparatively few or unimportant, and, in regard to weather, that the exceptions are few or only temporary.

The writer had decided not to unite the returns for diphtheria and croup, although he himself was disposed to consider them identical; there are still too many who do not so consider them.

From a diagram, he had prepared, Dr. Thomas proceeded to explain the average curve in the diphtheria death-rate in Baltimore for the last twenty-two years. The fewest deaths occur in July. There is a rapid and steady rise from this month, till the highest number is reached in October. During the next two months the maximum is nearly maintained. January shows a commencing fall, which is increased in February, after which there is a gradual fall, broken by temporary rises in March and May until the level of July is again reached. In comparing the separate years with this curve, July was found lowest, or as low as the lowest on the list in fourteen years, eleventh in one, seventh in one, eighth in one, and sixth in three. July shares the lowest figure once with April and June, once with May and June, and twice with August. Besides this, the lowest occurs twice in March, three times in April, once in May, and once each in June and August. The lowest for the year is never met between August and the succeeding March, and with two exceptions not till April. The rise in the death-rate occurs with great regularity after July. In seventeen years, every month thereafter has a larger diphtheria death-rate than July. In the remaining five years the exceptions are mostly unimportant, occurring chiefly in August, though sometimes in the other months, as December.

In fourteen years the highest number of deaths is found in the last three months of the year, in the other years it is distributed between January, February, March, April, and September, never occurring between April and September.

Comparing the years, month by month, January almost always shows a fall from the height attained in the three preceding months; February a fall on January in fourteen years; March has no constant relation to February; April has fewer deaths in fifteen years; May and April nearly correspond; June shows a fall on May in twelve, and July a fall on June in fifteen years. After this the rise is regular, August is more than July in sixteen years; September than August in eighteen; and October than September in thirteen. After this the months nearly correspond. Both on the diagram and year by year, September shows an equality with January, and August with February (the number of times one of these months exceeds its companion month being counter-balanced by the number of times it falls below it). Thus we have a very slow fluctuating fall in the spring, and a rapid rise in the autumn.

This season-curve agrees fairly well with results obtained by other observers who have believed that the season exerts an influence. The season does not seem to exert so great an effect on epidemic diphtheria, though Dr. Airy found the greatest number of outbreaks in England occurred in October. It is interesting to note from this that neither heat nor cold alone can be blamed; but that the rise is most rapid, and the maximum reached at the very season when fungoid growth is most active.

Dr. Thomas proceeded to explain the combined charts which he had prepared, giving the diphtheria death-rate, the average barometric pressure, the total rain-fall, the direction, maximum, and mean velocity of the wind, average thermometric measurement, relative humidity, and approximate degree of cloudiness for every week from the 1st of January, 1879, to the fourth week in April, 1883.

The conclusions arrived at from these charts were as follows: While the total rain-fall for the year, as shown by a table he had prepared, seemed to exert no regular influence, the distribution of the rain appeared to have a good deal. A continued and heavy rain-fall occurring at any one time was followed by a rise in diphtheria. This was specially noticeable when the rain-fall occurred during the summer and autumn. No connection could be found between great cold and great humidity, though unusual heat for the time of year,

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combined with humidity appeared to act as predisposing causes.

Dr. Thomas' conclusions were as follows, though he explained that they could only be accepted as tentative, and pointing the way for future investigation:

1. While the weather alone does not regulate the absolute number of deaths from diphtheria, it seems to have a very important bearing upon the rise and fall of the violence of the disease, although temporary fluctuations occur independently of it.

2. Temporary changes in the weather have but little effect, but a continued prevalence of certain kinds of weather does cause a rise or fall in the mortality from diphtheria.

3. The conditions favorable to a rise are low barometer, long prevalence of low winds, especially from the east (E., S.E., N.E.), high temperature (for the time of year), with high humidity, and heavy or continued rain-fall.

4. The conditions favorable to a fall are high winds (if not from E., N.E., S.E.), low humidity with high temperature, or high humidity with low temperature, and (generally) high barometer.

These conclusions apply to Baltimore; it is quite likely that in places under other conditions different results would be found. A number of authorities were quoted and discussed. The charts showed no relation between cold and dampness, and the death-rate from diphtheria.

WEDNESDAY, APRIL 25TH.—SECOND DAY.

DR. B. BARTON BRUNE read the report of the

SECTION ON MATERIA MEDICA AND CHEMISTRY,

giving the most important advances in urinary chemistry published during the past year. He referred to Dr. Garrod's views, that the uric acid is found in the kidney in the form of urate of ammonium; that in the presence of excess of sodium salts it becomes converted into sodium urate, in which form it exists in the blood.

Dr. Garrod does not think that gravel in the urine is the nucleus of a calculus, which he believes to be due to the perversion of the kidney cell secretion, and the action of some colloid matter.

Dr. Brune proceeded to speak of the picric acid as a test for sugar, which has been so warmly advocated by Dr. George Johnson (*Brit. Med. Journ.*, March 12, 1883). His conclusion was that if all Dr. J. claims for it be found true by other observers, this will soon supplant *all* the other popular tests for sugar; but Dr. Brune thought Dr. J. underestimates the importance, as a source of error, of the formation of picrate of potassium when picric acid and a solution of potassium hydrate are boiled together. In a certain number of experiments made by himself, he found that the appearance of such a deep orange discoloration as would seriously complicate the detection of minute quantities of sugar. Dr. J. does not mention, moreover, what effect, if any, the presence of ammonium or some of the iron salts, etc., would have on the accuracy of this method, although these are known to reduce picric acid.

DR. J. R. WARD, *Chairman*, read the report of the

COMMITTEE ON SANITARY SCIENCE,

in which he urged the importance of more thorough popular instruction on hygiene and the laws of health. The physician ought to avail himself of every suitable opportunity to explain and enforce them amongst his patients. It is likewise most important to impress them upon children and young people, and instructions on hygiene should form part of the regular curriculum in the public schools. The need of such teaching is felt when any contagious disease attacks the community; as, for instance, in the recent epidemic of smallpox in our own city. Dr. Ward then proceeded to speak of the two methods of vaccination, that with bovine virus and that with the human crust. After instancing some objections to which both kinds are liable, he said that the whole subject demanded a much fuller investigation than had yet been given it.

SECTION IN OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

DR. A. FRIEDENWALD, *Chairman*, presented a report on the

RELATIONS OF SPINAL AND EYE DISEASES.

After speaking of the close connection between ophthalmology and the general practice of medicine, he continued: It has long been realized that spinal diseases not infrequently affect the eye. Not only is this the case with tabes dorsalis, but with other lesions of the cord. Sufficiently large statistics are still wanting upon which to base a correct estimate as to the percentage of eye troubles in affections of the spinal cord. In consulting statements made on this point, we must remember that the optic nerve not seldom presents the first symptoms of the disease. According to Charcot, amaurosis may be the first and for a long time, even ten years, the only symptom manifested. Cyon found eye disturbances in 105 out of 203 cases of locomotor ataxy. Erb says that permanent eye troubles arise in from one-fifth to one-third of all cases, and temporary difficulties in more than one-half; Tropinard, that visual disturbances occurred in 49 out of 102 cases. Not only in locomotor ataxy, in which the eye is most frequently affected, is this the case, but eye disturbances occur also in multiple sclerosis of the brain and spinal cord, in chronic myelitis, in slow compression of the cord after injuries, and, more recently, we find that cases of acute myelitis are not free from this complication. Among others mentioned, Rieger and Von Forster have been conspicuous. They have studied extensively the symptoms of insane paralytics, and, by means of post-mortem examinations, have shown that the optic nerve degeneration which accompanied these cases was due not to cerebral lesions, but to disease of the spinal cord—that was concomitant in these cases; for, though meningitis and atrophy of the cortical substance of the brain had existed, eye symptoms were always wanting unless disease of the spinal cord had also been found. In locomotor ataxy and in multiple cerebro-spinal sclerosis, the eye is not assailed in the same way. In ataxy, the optic nerve becomes implicated, and the disease progresses until total amaurosis ensues. In multiple sclerosis, the optic nerve seldom undergoes complete atrophy, and persons suffering from this disease seldom become completely blind. The eye trouble in the former pursues a steady, in the latter a fluctuating, course. In multiple cerebro-spinal sclerosis, the cord and the eye are independently attacked. We are forced, however, to admit that a diseased condition of the spinal cord can induce changes in the distantly situated optic nerves as a direct consequence, especially in cases due to traumatic lesions. This is also shown by the result of physiological experiment, so that, in the present state of our knowledge, we must assume that the injury is transmitted by a vaso-motor disturbance conveyed in the tract of the sympathetic nerve. We must not overlook, however, that Stilling has traced roots of the optic nerve in the medulla oblongata. Cases where the spinal cord has received traumatic injury furnish the most conclusive testimony regarding the optic nerve degeneration being due to the direct influence of spinal disease. Allbutt found eye disturbances in

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eight out of thirty cases. They were only present where the disease was chronic. Dr. Friedenwald mentioned the reports of several other observers on this point, in which cases with vascular disturbance in the eye were mentioned, which he considered to have a very important significance, because Von Graefe rejected the idea that optic nerve atrophy directly follows spinal disease, from the fact that he had never seen it preceded by hyperæmic conditions pointing to an optic neuritis as the beginning of the eye disease. It is very probable that the atrophy, instead of being the starting-point of the eye disease, is but the consecutive expression of a previously existing inflammation.

The force of Graefe's suggestion has been much shaken, not only by observations with the ophthalmoscope, but also by the investigations of Rieger and Von Forster, who report two cases of chronic spinal disease in which well-marked intercurrent hyperæmic conditions were observed. Dr. Friedenwald proceeded to adduce further evidence in support of the above statements, and to speak of the close connection between the sympathetic nerve and the eye, and to describe the various physiological experiments which Rieger and Von Forster have undertaken.

When the cervical sympathetic was irritated, contraction of the pupil and of the retinal vessels ensued. When the lumbar portion of the cord was operated on, there were dilatation of the pupil and contraction of the muscles. When the dorsal portion was chosen, both dilatation of the pupils and of the vessels occurred. The fact that an irritation of the cord will set up hyperæmic conditions of the optic nerve is satisfactorily established, and it cannot be denied that the sympathetic nerve may, under certain circumstances, be the medium through which the eye is reached. Speaking in regard to the differential diagnosis of optic disease as a result of spinal lesions, he said that the ophthalmoscope alone is hardly sufficient. Red and green color-blindness, the contracted field of vision, especially the sector-shaped defects, are prominent among the data furnished by examining the functions of the eye; also increased sensibility to light, even when almost blind. Examination of the tendon reflex will often be of great value. In regard to the changes in the pupils, there is nothing peculiar when they are dilated, but, when contracted, quite a characteristic condition is that, while the contracted pupil shows changes with the efforts at accommodation, it shows no change under the action of light. The most difficult point in this study relates to the disturbance of the external muscles of the eye. The muscles supplied by the fourth pair of nerves enjoy almost entire immunity; those supplied by the third and sixth are attacked with about equal frequency. Sometimes the motor oculi of one eye will be involved, while the abducens of the other alone has suffered. We are still very much in the dark as to this point, and it is hoped that future investigators will clear up the discrepancies.

DR. H. CLINTON MCSHERRY read a paper on

STENOSIS OF THE LARYNX,

illustrating it by three cases from his own practice, one of which he exhibited. The first case was a female suffering from constitutional syphilis. She came to him with a history of chronic trouble in her throat, which, with fluctuations, was getting worse. He found her breathing very labored, and, on laryngoscopic examination, the whole larynx pale, the arytenoids being very much enlarged and œdematous, but showing no sign of phthisis; ventricular bands so much thickened and broadened that on attempted phonation they met together. The voice was a muffled whisper; on deep inspiration the edge of the right vocal cord came into view, the left could not be seen. Throat symptoms apart, her general condition was good. Considering the thickening to be due to syphilitic perichondritis, he relied upon local applications and constitutional treatment; applied iodo-glycerine (Vienna Hospital formula) daily, with excellent results; galvanism to the larynx being also used. To the second case he was called in haste, on account of impending suffocation. This also was trouble of a specific nature; the laryngoscope revealed complete destruction of the epiglottis, and inflammation of the ventricular bands, which were so swollen as to hide the vocal cords. The glottis was so closed as to be not larger than the calibre of a goose quill. Other means having failed, laryngo-tracheotomy was performed, after which the patient did well. Having reduced the thickening in the glottis by means of local applications of a solution of cupri sulph. for two weeks, Schrötter's dilating tubes were daily introduced, size gradually increased for a month, with good results. After accustoming the patient to breathe through the natural openings by frequently corking up the tracheal tube and continuing the above treatment for nearly a year, he was able to remove it entirely and close the wound. This patient was exhibited. There is no difficulty of breathing, though the voice is still a little husky.

Dr. McSherry proceeded to give a *résumé* of the course pursued by typical cases of different kinds of laryngeal stenosis. His opinion was that although most cases of stricture of the glottis are due to syphilitic disease, constitutional treatment alone will never effect a cure in a well-marked case; local treatment being always necessary. Tracheotomy is proper to save from imminent death, but should not be undertaken without laryngoscopic examination, as the dyspnœa may be caused by a slight œdema glottidis or a collection of mucus. Schrötter's hard-rubber tubes are invaluable for dilatation. Speaking of the mode of dilating the larynx after tracheotomy, he referred to an instrument for dilatation from below (through the tracheal opening) invented by Störk in 1878, which Dr. McSherry had so modified as to give it three dilating blades instead of two. These blades may be made of different lengths to suit different cases, and may be gradually more and more separated from each other day by day, by turning a screw outside of the canula to which the instrument is fastened; the third blade is placed anteriorly, so that as they separate, the blades form a triangle, which is the normal shape of the larynx. Dr. McSherry then exhibited this modified instrument; he then described Schrötter's method of dilatation after tracheotomy, and other instruments for dilating the larynx. Dr. McSherry considered that the cases he had reported illustrated the good results obtainable in laryngeal stenosis.

DR. C. W. CHANCELLOR read a paper on

THE SEWERAGE OF CITIES: LIERNUR'S PNEUMATIC PLAN.

It is as important a matter for cities as for individuals to get properly rid of all waste and effete matters. Liebig tells us that every living organism produces in its offal the manurial ingredients, both quantitative and qualitative, required for reproducing the means of sustaining its life. So it is also undeniable that the nitrogenous and other matters in the sewerage of cities might be so used as to suffice for producing food for the people of the city. But this fact is ignored. We import fertilizers at great expense, when we have them at hand, and use what we have to pollute our streams. Considering the so-called "dry systems" out of the question, Dr. Chancellor spoke of the three great systems: 1. "The English water carriage," or "combined" system, found throughout England, and in many large cities of the

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Continent. This treats all sewerage of all kinds alike, by conducting them off in the same conduit, a large quantity of flushing water serving as means of conveyance. This system Dr. Chancellor condemned. The principle "that water is the cheapest carrier," is wrongly applied. It is true in the case of navigable rivers and canals, but not for sewers, where enormous quantities of water must be supplied from the city water works, especially when the offal must subsequently be again removed at great cost. Again, as the maximum water use is in the morning, and the least at night, the sewer flood is in the daytime and the ebb at night. During the ebb the sewer becomes "coated" with fecal slime about one twenty-fourth to one thirty-second of an inch thick, which is not removed by flushing, and enters into putrid fermentation soon after being exposed to the air, as it is every evening. This fermentation is a fungous vegetation of the most dangerous kind. Sewer ventilation does not prevent these fungoid growths from exerting their poisonous influence, for being solid, they cannot be diluted by the air, and they cannot remain suspended. As a matter of fact, sewer gas does find its way into dwellings.

The chief difficulty with this system is what to do with the sewerage matter after it leaves the city. Empty it into the nearest water-course? Then the rivers, bays, etc., are hopelessly polluted, as is notably to be seen in the Bay of Naples. Use it for irrigating land? This is altogether inapplicable to large cities. The land becomes overdosed, and a noxious swamp results, as has been seen near Berlin. Only rank grass thrives on such diluted manure, and it is almost worthless. In short, this has proved a failure. The failure of this led to the second system, called the "separating" system; this is open also to serious objections, and having two sets of sewers on this plan really doubles the danger.

In Baltimore, with its numerous hills, the surface drainage should be as little as possible interfered with, as every rain aids in keeping the city clean; only short, shallow conduits in certain parts of the city are needed for the removal of rainfall.

The third, or pneumatic system of sewage, as invented by Capt. Liernur, a distinguished engineer of Holland, was next considered. This system was inaugurated by him when he was intrusted with preparing plans for the drainage of the fortifications of Luxemburg. His instructions were that only inoffensive waters should drain off into the little stream (Else) on which the city is built, and that all matter suitable for manure, should be preserved for that purpose. He adopted the plan of having two distinct sets of sewers, one for matters which are essentially dangerous from a sanitary point of view, but which have sufficient value as manure to justify the adoption of processes to render them available for agricultural purposes; the other for fluids already inoffensive, or easily rendered sufficiently so to be discharged directly into the nearest water-course. Dr. Chancellor proceeded to describe with much minuteness the pneumatic system, how the sewers of each kind were constructed, and how they worked, together with their special advantages. The advantages possessed by the water sewers are: 1. That it does away with the expensive collecting or intercepting sewers for conducting the sewage in mass to some common outlet away from the city. 2. With all expensive fixtures for flushing, such as water galleries, tanks, grates, etc., there being nothing to demand removal by extra flushing, or to cause a nuisance at the outlet. (No solid matter greater than a fraction of an inch in size being allowed to enter.) 3. With all expensive structures for entering and lighting the sewers for the purpose of removing sedimentary deposits, since no deposits are formed. Another advantage is that the household drains enter the sewer in such a way as to create a current forward in the fluid in the sewer. The result is: 1. All water entering the sewer is converted into hydrodynamic motive power, pressing as it does on the sewer contents by means of vertical injector tubes in the direction of the flow. 2. (As the sewer is kept full of water,) all inlet arrangements and ventilation tubes are entirely superfluous, there being no air admitted or any to be displaced. Thus an effective self-regulating sewerage for household and manufacturing wastes, is afforded, which discharges them in an innocuous condition, and dispenses with the above-mentioned contrivances used in ordinary sewerage methods. After speaking of some modifications for rain and sub-soil sewerage, Dr. Chancellor proceeded to describe the excretal sewers on the Liernur method. This he went through in detail, showing how simple and yet how perfect the arrangement was, and then explained how this kind of sewage is utilized. All the fluid parts of the matter are driven off by the use of heat, the same fuel being used for this purpose as is employed for working the vacuum engines for the sewers, thus much reducing the expense. As the process takes place in a partial vacuum, there is no smell. The result is that the fæcal matter becomes a valuable commercial article, being reduced to a state of fine powder fully as well suited for manure as is guano, and far less costly, and, at the same time, it has been removed from the city in strict accordance with the laws of sanitation. Notwithstanding the apparent complexity and costliness of this system (which is only apparent) it turns out in the end not only more advantageous to health, but really cheaper than the other systems. Dr. Chancellor concluded by speaking of the necessity for convincing the public that "the present barbarous mode of removing offal, of polluting streams, and wasting millions worth of valuable manurial material, has no longer any right of existence, since sanitary science and engineering skill have fully succeeded in satisfying all demands in reference thereto."

THIRD DAY.

After reading the minutes, the first order of business was the

ANNUAL ORATION,

by DR. JOHN S. BILLINGS, of Washington. After some introductory remarks, the orator proceeded to the discussion of his subject, which was

"MEDICAL BIBLIOGRAPHY."

This was defined as the science of books having regard to their description and proper classification. This definition in the *Encyclopædia Britannica* is very much modified from that of a hundred years ago, when it signified "skill in deciphering and judging of ancient manuscripts," that is paleography. Bibliography, when applied to a particular subject, includes the idea of giving references to all the literature of the subject down even to single paragraphs which furnish information with regard to the matter in hand. The first distinct and separate work on the subject is that of Pascal Le Cocq (*Paschalis Gallus*), 1590. This book is arranged alphabetically by the first, not the last names of the authors.

Israel Spachius published at Frankfort, in the following year, his *Nomenclatura Scriptorum Medicorum*. It contained references to 1436 different authors. Both books were based on the *Bibliotheca*, of Gessner. After describing the *Bibliotheca*, of Haller, the orator proceeded to say that it was not his intention to indicate or comment upon the various systematic works on medical bibliography, but he would

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consider, to begin with, some of the methods used in medico-bibliographical work.

1. First there is the old-fashioned way of searching books immediately at one's command, using their indices, noting all references to other works, going to a library, procuring more books and more references, etc. This a very laborious way, though after a while it becomes a pleasure. The best work has been done by this method, but it requires much time. 2. The modern mechanical way, the extreme of which is to pay some one to make a list of references for you, and then print it as a bibliography of the subject, without taking the trouble to consult the works themselves. Some writers seem to desire to furnish their article with an imposing list of references without much caring whether they have special relation to the matter in hand or not. The mechanical method, however, is of great use as saving the time of those who can be more usefully employed, and, in most cases, the mass of material to be dealt with is too great to be handled in any other way. "There is danger," as Sir James Paget says, "that in the multiplication of scientific pursuits, and in the superabundance of means of publication, we shall lose the accuracy which should be at the foundation of our work. The publishing of error is quite as easy as the publishing of truth, and there will always be a large number of persons who will believe a statement because it is in print."

An article, signed Ch. R., in the *Revue Scientifique* for July, 1882, urges sincerity as an indispensable condition in bibliographical work. "It is almost a lie to quote a book which one has not had in his hands." Elementary scientific honesty requires that only such books be cited which one has read. No author can consult everything that has been written upon a subject, but there is nothing to prevent stating that a given bibliographical note is at second-hand, and noting the authority for it. Truth is not the only requisite for good bibliography. An important part of true erudition, as the same writer observes, consists in the elimination of the many useless data and materials that have been collected. M. Richet would have no mention made of such references. Dr. Billings thought that, so far as concerns the titles of books or papers, which might seem to a person unacquainted with them to relate to the matter in hand, this rule was not to be followed; that when a writer has examined such a book or pamphlet, and finds that it would be a waste of time to consult it, either from its want of originality, or from its contents not corresponding with the title, etc., he should note the fact distinctly. It is often as important to indicate "no thoroughfare" as to point out the direct road.

This critical indication of the value of a paper, makes the difference between bibliography properly so called, and catalogues and indexes; the main purpose of a bibliographer being to save his reader time and trouble should he wish to verify or enlarge upon the author's statements. If in his investigations he consult a book which proves to be practically useless, he should spare his reader the trouble of looking it up by telling him so. Of course, it is much easier to refrain from all mention of contemporary works than to speak disparagingly of them; but it should always be done for the older writers when any attempt is made to present a bibliography, properly so called.

M. Richet does not think it unwise to attribute great importance to bibliography, nor does he think the turning over of a great number of pages destroys originality. Those too who have the gift of originality, are excused as being the creators who have no need to be erudite. But the majority, who are neither discoverers nor inventors, do need to be. Prof. Verneuil in his preface to the *Treatise on Gastrostomy*, by L. H. Petit, is more decided in his high opinion of erudition. In his opinion, the author of this book has contributed as much to the future success of this operation as any who have practised it, although he never performed it, and probably never will; the work is one of pure erudition. He says: "Scientific progress is due to three things of equal importance, viz., erudition, observation, and experiment. There is a bibliographical method which is distinct, independent, worthy of cultivation for its own sake, and in no way inferior to its two rivals in the amount and value of the information which it furnishes. . . . While erudition certainly creates nothing, it leads to creation. To discountenance research in literature, is like advising travellers who visit regions not yet fully explored, to refrain from making use of the maps prepared by their predecessors. The great objection to such work is the amount of time which it requires if it is to be done thoroughly and accurately." He proceeds to show how the time spent is greater on account of each man having to serve his own apprenticeship almost alone; for bibliological method has never been taught. No one could do such work for himself on all subjects; a lifetime would not nearly suffice for pathology. While observation and experiment are not to be depreciated, let erudition be duly honored.

In America, Dr. Billings went on to observe, there is rather a feeling of undue uncritical admiration for erudition in bibliographical matter than of the contempt or dislike of which Prof. Verneuil complains in France. Until recently, American physicians had not at their command the means of research in medical literature possessed by their trans-Atlantic brethren, and even now in many places they cannot obtain access to them. The members of the Medical and Chirurgical Faculty of Maryland, especially those living in Baltimore, are peculiarly fortunate in this respect. You have a library in Baltimore, which, until a few years since, had for its strongest characteristic feebleness. Recently, the collection has been put into order, and made accessible, a certain number of medical journals are regularly received, and other improvements have been effected. The best use, however, to which your library can be put to, is so to arrange it that it may be the means of your getting the full benefit of your other collection over in Washington, which you may consider as a sort of branch library of the faculty.

The library of the Surgeon-General's Office is a large and valuable one; it is your library, intended for your use, and not a bureau library intended for the use of officials. How may you best use your two libraries, and what should be done to maintain and increase their completeness and usefulness?

First, then, your library in Baltimore should be made, and kept, as complete as possible in the local medical history of the city and State. It should contain every medical book, pamphlet, etc., published in, or relating to the State. The great majority of these will cost nothing but watchfulness and prompt application for them at the time of publication, but if they be not then obtained, the acquisition soon becomes difficult. You want every report of a hospital, asylum, or dispensary; every announcement or catalogue of a medical school; every mortality report, order or handbill issued by sanitary authorities for the State or city; and, as far as possible, you want to obtain at least two copies of each, one for the Baltimore and one for the Washington branch. It is a matter of interest also to keep in the library, constantly posted up to date, a scrap-book for local newspaper cuttings of all matters of medical or sanitary interest, which should be promptly and systematically inserted. A small scrap-book properly indexed to contain newspaper medical

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advertisements, especially those of the various quacks who infest this, as they do all other large cities, will be found in years to come very interesting, and, it may be, useful.

The limited amount of funds available for increasing your Baltimore collection, will naturally be, for the most part, applied to the purchase of medical journals. The main thing which you have to do is to perfect the system of care and storage of your books, in order that they may be perfectly secure against, let us say, unauthorized borrowing.

This is necessary, not only to preserve your own books, but to make it possible for the Washington library to loan freely to the Baltimore library. The Washington collection is a reference, and not a circulating library. It does not, as a rule, loan books to individuals; although for modern books which can be readily replaced it will do so upon a sufficient deposit to amply cover their value, its rules in this respect being the same as those of the Library of Congress; but it will freely loan them to other libraries which are so constructed, located, and managed that the books in them are secure from fire, theft, etc. Now suppose that a member of the Faculty desires to prepare a somewhat elaborate article upon some medical subject for a society or journal, and that for this purpose he wishes to compare his own experience and observations with those of others, how is he to proceed?

Before attempting to answer this, Dr. Billings remarked that, as the librarian is busy with his current work, it is impossible for him to assort and arrange references to any great extent in answer to letters from physicians, although he can of course furnish information requiring some half dozen references, can verify a quotation, and is glad to furnish information which a brief examination of a few volumes will supply. The doctor had better visit Washington himself and examine the references, cards, etc., which he can do if he does not interfere with the catalogue work.

Secondly. As a rule it is not well to issue a circular informing the world at large of one's intention and asking physicians generally to report at once all the cases they may have had of the particular disease or injury which one proposes to discuss. This may properly be done by those recognized as authorities on the subject, and who may well be trusted to classify, compare, and judge of the results of other's work. But when a comparatively unknown man makes such a demand, his success will probably be small, and properly so. A man must show he has money before calling on the public to bank with him. To obtain as much as possible from a library, you should bring as much information there as you can, and have it in as clear and definite a form as possible. Note upon a slip of paper the books you wish to see, giving their titles concisely but clearly, so that they may be easily found. Consult the *Index Catalogue* so far as published, the *Index Medicus*, and the bibliographies attached to the articles in the modern French and German encyclopædias, and it will be strange if you can find no titles which will put you on the right road. Remember that the *Index Catalogue* is not a bibliography. Dr. Billings said that he might some day have occasion to write on its uses and abuses, in which case the main point would be that it must be used for a time before you can judge of its merits.

Having prepared the list of references to be consulted, which had best be written on cards of uniform size, the next thing is to get the books. A visit to Washington, when possible, is the best thing; much time will be saved if a list of the books desired be sent by mail to the librarian the day before the visit, so that they may be laid out ready for examination. Where a personal visit is impossible, the best thing is to get a library which has means of safely caring for the books, and will be responsible for loss or damage, to borrow them, the applicant, of course, paying the expenses.

At present it is a part of your duty also to see that your Washington library is made and kept as complete as possible. In the first place, it should have every new medical book, journal, report, or thesis, in every language, as soon as possible after its publication. You ought to be certain of finding in this our national medical collection the latest literature upon any subject connected with medicine; and everything noted in the Index Medicus should be upon its shelves. Now, to effect this would require an appropriation of from seven to eight thousand dollars a year. The medical journals and transactions relating to medicine and the allied sciences will alone cost about $2,500 per annum. In the second place, the deficiencies in the library should be gradually supplied as opportunity offers. The amount and character of these deficiences are a matter of some interest. In order to obtain some data on this point, I have compared the catalogue of the Washington Library with those of the two largest collections of books in existence, viz., the British Museum of London and the Bibliotheque Nationale of Paris. Taking the fasciculi of the catalogue printed by the British Museum in 1881–82, I find that, on 1,140 pages, containing about 34,000 titles, exclusive of cross references, there are the titles of 657 books and 880 inaugural theses relating to medicine. Comparing these with the corresponding portions of the Washington Catalogue, it is found that the British Museum has 262 medical books, 372 medical theses, and 118 different editions which are not in the Surgeon-General's Library. On the other hand, the Surgeon-General's Library has 285 books, 342 theses, and 88 different editions which are not in the British Museum. There are common to both libraries 277 books and 508 theses. The two libraries, therefore, appear to be nearly equal as regards medical books. This is exclusive of medical journals, transactions, and reports in which the Washington Library is much the richer. The following tables show in detail, by countries and periods, the difference between these collections as regards medical books:

The Catalogue of the Medical Section of the Bibliotheque Nationale in Paris, is arranged by subjects and not by authors, does not include inaugural theses or dissertations, and was published in 1857–73, hence it is not possible to make an exact comparison between it and the *Index Catalogue*, or that of the British Museum. But taking the general subjects, anatomy, diseases of the eye, and cholera, I have prepared a table showing the results of a comparison of the two catalogues, from which it appears that in the first three subjects named, 199 books are common to both, 416 are in the Washington collection only, and 483 in the Paris collection only. On the subject of cholera (excluding treatment), 194 books are common to both, 745 are in the Washington Library only, and 272 in the Paris Library only. The books which the Paris Library has, and our own Library has, are not for the most part old books, dating before 1800, or French books which come to the Library, under the law which requires one copy of every French publication to be deposited there.

This law is not strictly obeyed, for we have in our Library 79 French works on cholera, which are not in the Paris Catalogue—but it is due to this law that the Medical Section of the National Library of France, is essentially French and not cosmopolitan.

As the result of these comparisons, I think it is safe to conclude, that the Library of the Surgeon-General's Office in Washington not only contains more medical literature than the British Museum or the National

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Table giving results of a comparison of 1140 pages of the British Museum Catalogue in the letters A and C, with the corresponding pages of the Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army, Washington, D. C.

Books.	Un. States.			England.			France.			Germany.			Italy.			Spain.			Others.			Total.		
	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum, only.
Prior to 1600, ...							3		3	5	3	12	7	5	14			2	1		3	16	8	34
1600–1799, ...				20	8	17	10	4	9	29	9	16	6	2	12			4	1	2	4	66	25	62
1800–date, ...	13	63	3	80	41	64	32	57	42	57	52	43	3	14	7	1	3	3	6	22	4	192	252	166
Editions not in Library, but of which it has the book,		32	4		30	71		8	9		12	14		3	12		2			1	8	3	88	118
Total books, . . .	13	95	7	100	79	152	45	69	63	91	76	85	16	24	45	1	5	9	8	25	19	277	373	380
Theses, ...																								
Prior to 1600, ...												4									2			6
1600–1799, ...	1	1		6	18	1	3	1	21	89	60	76							5	11	16	104	91	114
1800–date, ...	1	4	1	3	14	2	412	69	223	39	177	11			9					47	6	404	251	252
Total theses, . . .	2	5	1	9	32	3	415	70	244	128	237	91			9				5	58	24	508	342	372

NOTE.—Periodicals, transactions, and reports of medical institutions excluded.

Table showing results of comparison of the Medical Section of the Catalogue of the Bibliotheque Nationale, Paris, with the Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army, for the subjects Fevers, general treatises, and Cholera.

Anatomy, Fevers, and Eye Diseases.	Un. States.			England.			France.			Germany.			Italy.			Spain.			Others.			Total.		
	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.
Prior to 1600, ...				1	2		5	3	17	7	2	2	17	10	24			4	6	6	11	36	23	58
1600–1799, ...		1		18	40	13	21	13	65	13	31	10	7	16	1	1	1	5	27	23	27	90	116	156
1800–date, ...	1	46		5	45	2	41	8	60	17	62	6	7	9	5		4	2	2	18	13	73	192	88
Different editions, . .		7	1		24	14		11	91		18	27		2	21		3	1		20	26		85	181
Total, ...	1	54	1	24	111	29	67	35	233	37	113	65	34	28	66	1	8	12	35	67	77	199	416	483
Cholera, ...	2	85		18	130	11	142	79	219	17	272	5	10	64	30		4		5	111	7	194	745	272

NOTE.—Theses and reprints excluded.

Library of France, but that it covers a wider field, represents better the medical literature of the whole world, and is decidedly a better practical reference and working collection for medical purposes than either of the great libraries referred to. Each library is, as might be expected, richer in the literature of its own country, but the French Library is comparatively poor in English and German medical books, and has almost nothing in American medical literature, while the English Library is also poor in American literature, and comparatively weak in German medicine of the present century. Both of them are rich in the literature of the fifteenth and sixteenth centuries, and have many editions of older works, of which the Washington Library has only one or two. Both of them have been in existance for over three hundred years, and have had almost unlimited funds for the purchase of books.

Why, then, is it that they do not contain all medical books which have ever been printed, and that your medical library in Washington, which is only about twenty years old, and has never had in any one year funds sufficient to purchase more than two-thirds of the medical books printed in various parts of the world during that same year; should already be equal if not superior to them in practical value? It appears to me that it is very largely due to the fact, that while the Washington Library is the national collection, it has been kept separate from the general national library. The result of this has been, that the medical profession has taken much more interest in it than they would do

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if, as is the case with the English and French medical collections, it was merely a section of the National Library.

As a matter of fact, comparatively little use is made by medical writers of the collections in the British Museum or the Bibliotheque Nationale. They consult, in preference, the special medical libraries in London and Paris, which are under the direction of medical bibliographers, such as the libraries of the Royal College of Surgeons or of the Medico-Chirurgical Society, or those of the Faculty of Medicine or of the Academy of Medicine of Paris. It is to such special libraries that physicians give their books and pamphlets; and the rapid growth of the Washington Library is largely due to this cause. There is pouring into it a steady stream of literature, the sources of which are by no means confined to this country, although, of course, the largest part comes from the United States.

Those who incline to pessimistic views of human nature, and to attribute all the actions of men to selfish motives, would not find their views confirmed by my experience. I could name a number of gentlemen who take almost as much interest in the library as if it were their own, and who are constantly on the lookout to supply its deficiences.

Now, so long as the library can preserve and extend this feeling of interest in its completeness, so long it is sure to grow in value and usefulness; but if it be merged into a general national library, this interest will rapidly diminish. It is not to be expected that the manager of a large miscellaneous library, if well fitted for his position by a knowledge of general literature, should also be familiar with the various departments of scientific literature. As the modern Greeks say, "two watermelons cannot be carried under the same arm," and no subordinate or assistant will have the same stimulus to do good work that the man who is responsible in the eyes of the public will have. I think, therefore, that you will do well to see that a proper and commodious fire-proof building is provided for your Washington collection, that it is not merged with the Congressional Library, and that it is granted sufficient funds to enable it to secure all new medical books as they are published, and gradually to collect the best of the older literature.

It is supposed by some that this library receives a copy of every medical book published in the United States. This is not the case. Under the copyright law, two copies of every copyrighted medical book are deposited in the library of Congress, but no copy comes to the library of the Surgeon-General's Office. It seems to me that the law should be so amended as to make our library the place of deposit for one of the copyright copies, and this is a matter to which I invite attention. The keeping of this library complete is one of the most valuable means of advancing medical science in this country, now in our grasp, and it is within our grasp if the medical profession of this country choose to exert their influence for this purpose. The opportunity now presented for placing this matter on a proper and permanent basis will not occur again. There are not two springs in a year, nor in the life of a nation, and if the spring work be not done in time, the fruits of summer and autumn will be correspondingly deficient.

Dr. Billings said he liked the quaint, old-time name "Medical and Chirurgical Faculty of Maryland." While all real universities have other faculties, as of law, theology, and so forth, the term "*The Faculty*," applies only to medicine. This meaning of the term originated in Paris, where those who graduated as doctors graduated as teachers also, and the Faculty was composed of all the graduated doctors of medicine of the university. Thus the faculty of physic alone of all the other faculties of the university formed not only a corps for instruction, but also a body exercising a liberal profession, of which they had the monopoly, lucrative and honored, accessible as a rule only to the upper middle classes, and brought into continual relations with the public. Thus it came to be known as "The Faculty." Let the Faculty of Maryland preserve not only the name but the best of the tradition, such, for example, as that the doctor be an educated man, as his name implies. It is to be hoped that the higher medical education which the university is soon to organize will include instruction in bibliographical and historical methods. This will make the Washington library a very important aid to the university and prove a stimulus to the Baltimore collection.

SECTION ON GYNECOLOGY AND OBSTETRICS.

DR. WM. T. HOWARD, *Chairman*, made a lengthy report, illustrating his subject by stereopticon views thrown on the screen. He spoke of a number of gynecological operations, and concluded by a strong argument in favor of Tarnier's forceps.

This was followed by a supplementary report from the

SECTION ON MATERIA MEDICA AND CHEMISTRY,

by DR. JNO. T. LYNCH, who read a paper entitled

OBSERVATIONS ON THE ANTIPYRETIC EFFECTS OF CARBOLIC ACID; AND ON THE ASTRINGENT INFLUENCE OF RUBUS PROCUMBEUS IN DIARRHŒA AND DYSENTERY.

He said that, having had his attention called to the remarkable effects of carbolic acid in lowering the temperature in and apparently shortening the duration of enteric fever, by reports in the London *Lancet*, he had, during the past three years, experimented largely with this substance. He would not, however, go into the details of the cases treated, though he could speak of several hundred, but would briefly give the results of his observations. In his early experiments, the dose used was small, but it was subsequently increased, until, finally, as much as five grains was given every two or three hours, and thus far no toxic effect had ever resulted from these large doses.

The formula now used is:

Acidi carbolici, . . .	ʒj.
Tr. aconiti rad., . . .	ʒss.
Glycerini, ...	q. s. ad ʒjss.

Sig. Teaspoonful every two, three, or four hours, according to the temperature.

The tincture of aconite root was added as a heart sedative, as the carbolic acid did not seem to possess this quality. Dr. Lynch said that he had used these doses in all kinds of fevers, and found them fail less frequently than any other antipyretic, except the cold bath. It seemed to be precisely in those cases which quinine fails to control that carbolic acid is most effectual and reliable. Of this, Dr. Lynch mentioned a striking case, and added that, in purely inflammatory fevers, it does not show such complete control over the fever temperatures as in the purely idiopathic or essential ones, though it is still very useful. In enteric or typhoid fever, it seems especially applicable, preventing diarrhœa and tympanites, depriving the fecal discharges of the characteristic fetid smell, and, above all, entirely preventing the secondary fever. It also cuts short the disease. In septicæmic fever, too, the acid seems to act with a certainty and energy far superior to quinine. Dr. Lynch then gave in detail a case in which the two drugs were successively used, the carbolic acid contrasting favorably with the quinine.

On the use of *Rubus procumbeus*, Dr. Lynch re-

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marked that, although many of the old-fashioned remedies had given place to drugs and extracts containing the same active principles, they were sometimes far from producing the same satisfactory results. In his own experience, he had obtained most excellent results from the use of fluid extract of dewberry root in obstinate diarrhœa during phthisis, and also in the summer diarrhœa of infants. It has an effect far surpassing tannic acid, and seems to act as a specific. He has lost no case from the summer diarrhœa of children since he has used this drug.

APRIL 27.—FOURTH DAY.

DRS. H. NEWELL MARTIN and LEWIS T. STEVENS read a paper on

THE DIRECT ACTION OF ALCOHOL UPON THE HEART.

The authors experimented with the heart of the dog, isolated from all of the body but the lungs, in the manner previously described by one of them. The heart was nourished with defibrinated blood, then blood containing one-eighth, one-quarter, or one-half per cent. of absolute alcohol supplied to it, and finally good blood again. They find:

1. Alcohol in the above doses has no influence on the pulse-rate.

2. As regards the work done by the heart in a minute, blood containing one-eighth per cent. of alcohol is without effect, at least for five or ten minutes; but blood containing one-quarter per cent. of alcohol nearly always, and that containing one-half per cent. always greatly diminishes the work done. If the supply of alcoholized blood be not too long continued, the heart can be recovered by feeding anew with pure blood.

3. The diminution of work is due to an alteration in the elasticity of the cardiac muscle, in consequence of which the heart swells out, so that even in its systole it nearly or quite fills the pericardiac bag. Hence, in diastole, it cannot dilate further to receive a fresh supply of blood.

4. If the pericardium be removed, the above doses of alcohol are without effect on the work done, at least for a considerable time; the heart, however, swells enormously, and beats in a quite unphysiological manner, never obliterating its ventricular cavities in systole.

In a paper on

SOME FORMS OF LARYNGEAL PARALYSIS,

DR. J. D. ARNOLD described two cases in his own practice. The first case was that of a young lady, æt 19, who had for three years suffered from almost total loss of voice supervening on a severe attack of diphtheria. Faradism and galvanism with strychnia given subcutaneously in medium doses, had been persisted in for fourteen months without any manifest improvement. On examination with the laryngoscope, Dr. Arnold found the larynx normal in development and healthy in color and contour. The excursions of the cords and arytenoids were natural in amplitude, but upon attempted phonation, the left cord remained nearly immovable, whilst the right advanced slightly beyond the median line. After various experiments, Dr. Arnold found that upon touching the intra-arytenoid space with the tip of a sound, short isolated coughacts were produced, at which times the cords met in the middle of the glottis for an instant, and further, he found that the cough so produced *had tone*. He diagnosed a case of functional paresis, perhaps of an hysterical nature, and not of true diphtheritic paralysis. The patient appeared in robust health, so the treatment used was merely local. He applied a very weak faradic current four times a week, which, with short intermissions at intervals of ten or fifteen seconds, was applied for ten and twenty minutes, and immediately afterwards the intra-arytenoid space was lightly brushed with a delicate elastic whalebone sound. Each touch occasioned a sudden flying together of the cords, succeeded by the violent expiratory act of cough. After three weeks of this treatment, she acquired the power of giving tone to the vocal *a* (German inflection), and so, little by little, regained the whole range of vocal sounds, so that in less than three months from the commencement of treatment, she could sing as well as speak in a full, clear tone, and the voice had gained all its original compass. Twenty-one months afterwards, she had a relapse after a powerful emotional impression caused by the illness of a brother. This time the loss of voice was not complete, and the attack yielded to a few days' treatment and has not since recurred.

The other case was that of a married woman, forty-five years of age, who had suffered for several years from attacks of sore throat. The last attack had not yielded to the usual remedies, but had grown worse, until her voice was reduced to a whisper, broken occasionally by hoarse, guttural tones. She had also a harassing cough and great pain in swallowing. On inquiry, he found that she had had three healthy children, but during the last seven years had had five miscarriages, and this fact, though unsupported by any other symptoms, induced him to give her the benefit of an anti-syphilitic treatment. The larynx, when first examined, exhibited the following appearance: Epiglottis somewhat depressed and of a deep-purplish color, right arytenoid and ventricular band dusky, but of normal contour, the right cord crimson in hue and slightly thickened. The left arytenoid was swollen to about twice its natural size, and felt firm and unyielding to the sound; the left vocal cord was nearly invisible, and, except at the anterior third, was covered by a red, angry-looking tumor which seemed to spring from the ventricle. There appeared to be no loss of continuity in the mucous membrane anywhere in the larynx. When the patient attempted to phonate, the whole left side of the larynx remained immovable. He was led to suspect that the apparent tumor was in reality a prolapsed ventricle, and was in fact successful in returning it to its place with the sound, when there came into view beneath, the cord, unbroken on its surface but red and tumefied like its fellow. The slightest cough, however, or effort to produce phonation forced the ventricle back to its former position. Dr. Arnold pursued a constitutional treatment in this case, and strictly enjoined disuse of the voice. He also insufflated one-fourth of a grain of morphia with starch (to allay the cough) every day, and immediately afterwards replaced the ventricle, which was always displaced by the cough brought on after the insufflation. The local treatment consisted also in the application to the ventricle of a few drops of tinct. iodine and glycerine in equal amount at each visit. The patient improved rapidly, and in about three weeks was able to speak for some minutes in a low, quiet tone, whilst the larynx had to a large extent regained its normal appearance. In six weeks from the time the case was first seen, he had occasion to replace the ventricle for the last time. She is now almost entirely well.

SECTION ON PSYCHOLOGY.

DR. RICHARD GUNDRY read a paper on

PROGNOSIS IN INSANITY.

He said that certain symptoms render the prognosis absolutely unfavorable. The age of the patient may exercise some influence; youth being more favorable than old age. Insanity of children complicated by epilepsy, etc., is generally incurable. Propensity to suicide in children from apparently slight causes is

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seldom suspected until carried into effect; when early recognized, it seems amenable to treatment. In his own cases, the largest percentage of recovery occurred in patients under twenty, the next highest between forty and fifty. Over sixty, the proportion sensibly decreases. While females seem more likely to recover than men, they run greater risks and are more liable to relapses. This is largely due to the incessant cares of a mother in the lower classes and the listless inertia of women in the more comfortable classes. A material influence is exerted on the prognosis by the previous mental training and habits of the patient, whether his mind has been so disciplined as to exercise control over himself and his passions, or whether the emotions have attained mastery. Habits of self-denial and thoughtfulness for others, and strong sense of duty are great aids in the struggle towards restoration. Men of high grade of intellectual capacity suffer less from insanity, and when they suffer recover more readily, and a lofty aim in life has contributed much toward mental health. The earlier treatment is begun, the more hopeful is the prognosis. Hereditary influence does not preclude hope of recovery. A main factor is to be found in the distinction of mental disorder occurring in a previously duly developed normal brain with normal functions, or in a brain with abnormal functions due to inherited predisposition or other morbid constitution. The various periods coincident with physiological development, and so forth, may eventuate the attack. Puerperal mania is generally considered curable and leaves but little trace in cases where some cause is added, which would of itself have produced insanity, as some toxæmic influence or great moral depressing agency. Where the state itself appears to be the cause, the final prognosis is unfavorable. He proceeded to speak of various forms of insanity with their prognosis. Insanity occuring after the normal development of the brain and its functions presents a more favorable point of view. He included in this melancholia, in all its phases, and mania. Acute melancholia, however, is rapidly fatal. Dementia as a primary form is essentially curable; it is difficult, however, to distinguish it from the secondary form, which is incurable. General paralysis of the insane has an entirely bad prognosis. Syphilitic insanity, early discovered, is usually amenable to treatment. Rapid invasion of the disease is more favorable than gradual incubation. A sudden apparent recovery is not so favorable as a gradual return to health. The most favorable symptom is when the patient recognizes that he has been insane.

DR. S. C. CHEW presented

A CASE OF DEXIOCARDIA.

When he first saw the case, he supposed, after a hasty examination, that it was due to a left pleural effusion having pushed the heart to the right side of the chest. On further examination, it was found to be caused by disease on right side of the chest, the heart being carried over by the contraction of the right side after absorption of pleural effusion. The right side measures seventeen inches in circumference, the left eighteen. The lung itself has become affected with fibroid disease, and now contains vomicæ. The heart beats in the right mammary line, or a little beyond it.

The first case of this kind is reported by Dr. Stokes (1841–42).

EXCISION OF SUPERIOR MAXILLA.

DR. F. MCLANE TIFFANY presented a patient, a girl, whose right superior maxillary bone he had excised, removing the bone from the left lateral incisor to the second molar. He said that it was usually the custom, when the whole bone or a large portion of it was to be removed, to perform tracheotomy, and to plug the throat with cotton to prevent suffocation from the bleeding. Tracheotomy was supposed also to lessen the danger of septic poisoning, the breath passing not over the wound, but through the tracheal tube. Billroth has, however, lessened greatly the mortality after operation in the mouth by the use of iodoform, showing that cleanliness is what is needed, and not tracheotomy. Dr. Tiffany had once, in this operation, performed tracheotomy from its supposed necessity. In this patient, he had adopted a different plan. Anæsthesia having been induced by ether, he placed the patient on the face, the shoulders and body projecting beyond the table, and supported by two assistants, and the head supported by a third. When the body is so slung, it does not interfere with respiration. He operated with a lateral light, holding the head towards it. In this way, the blood runs out of the mouth, and suffocation is not induced. The history of the case is as follows: Three years ago, it was noticed that her jaw was swollen. There was no pain, and the swelling increased slowly. For a month before the operation the swelling grew with great rapidity. The bony roof of the mouth was largely destroyed, and the growth was covered over only by mucous membrane. The tumor was elastic to the touch. The operation was done in the position above described. It was now just four weeks and two days since the tumor was removed. The wound had not quite healed, but was healthy and granulating. The microscope showed that the growth was spindle-celled osteo-sarcoma.

In a paper on

SUBCUTANEOUS NERVE-STRETCHING AS A TREATMENT FOR SCIATIC NEURALGIA,

DR. J. W. CHAMBERS said that this operation was first introduced to the profession by Prof. Billroth early in 1882. It consists in placing the patient flat upon his back with the leg extended, the thigh is then strongly flexed upon the abdomen. Dr. Chambers described three cases in his own practice, in all of which a complete cure was effected, and also four other cases furnished by Dr. Coskery and Dr. Jones, of Frostberg, Md., three of which were cured, whilst in the fourth scarcely any improvement took place. He also cited four other cases from the journals, in two of which a favorable result was obtained, whilst the other two were not much affected. From all these cases Dr. Chambers drew the following conclusions: 1. That in obstinate cases of sciatic neuralgia the subcutaneous stretching of the sciatic nerve is highly satisfactory. 2. That from effects produced by the subcutaneous method, it is highly probable that all required force can be obtained. This he had also proved by experiments upon the dead subject. 3. The sciatic nerve could by this method be sufficiently stretched to produce anæsthesia. 4. That moderate elongation of a nerve impairs its sensory, and but little, if at all, its motor functions. 5. That considerable force may be applied to a nerve trunk without seriously impairing its motor functions. 6. That it is not necessary or justifiable to employ more force than just enough to produce anæsthesia.

DR. JOHN MORRIS said that he had seen the operation of nerve-stretching by Dr. R. Winslow once when it was cut down upon and then stretched. This was followed by a perfect cure. Five days before, the subcutaneous operation had been performed on another of his patients. The knee had been brought over so as to touch the abdomen. There had been great pain since, not only from the stretched muscles, but from the nerve below the knee.

DR. CHAMBERS replied that no operation could pretend to cure all cases of a disease. Sometimes cases of supposed sciatica were really cases of neuritis, in

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which case no good could have been done. He thought that in Dr. Morris' case the nerve may have been too much stretched. He had found this was followed by pain. In comparing the subcutaneous stretching with the other operation, he said it was much safer, and there was less danger of such great stretching as would cause disturbance not only of the sensory, but also of the motor and even trophic elements of the nerve, as had occurred in the history of the more serious operation, death occurring after sloughing.

DR. G. HALSTED BOYLAND read a paper on

HYPNOTISM,

which considered, 1st. *Its danger;* and 2d. *Its remedy.*

DR. RICHARD GUNDRY said that it should be regarded as a crime for a physician to leave a hypodermic syringe in the hands of his patient. He had seen most disastrous results from this practice.

FIFTH DAY.—APRIL 28TH.

DR. ST. GEORGE W. TEACKLE read a paper on

FACTS RELATING TO THE CASES OF SPONTANEOUS COWPOX IN BALTIMORE CO., AND THE RESULT OF EXPERIMENTS WITH CRUSTS OBTAINED THEREFROM.

He began by saying that he had been requested in last January, in company with DR. J. R. WARD, of Gavanston, to visit a gentleman's farm, to pass an opinion on a disease affecting the udders of his herd of Alderneys. On examining them, he found them to be suffering from cowpox. The four cows affected presented the disease in its various stages. No. 1, first affected, had dried, semi-hard crusts, considerably smaller than when produced by inoculation, but beautifully cupped. Nos. 2 and 3 presented vesicles becoming pustular, and pustules; No. 4, a few papules. The eruption was confined to the bags and udders (mostly the udders). The number of points of eruption was not numerous. The history was that, while thirsty and restless, their appetites were good.

The following facts were elicited: (1) No fresh additions had been made to the herd, except that six months before a cow had been sent to Connecticut, to a celebrated bull, but inquiry showed there was no disease among the cattle there; (2) no disease of the kind had prevailed on the farm; nor (3) had any one there been vaccinated within six months; (4) there was no smallpox patient or vaccine farm within a radius of three miles, nor had any one visited a variolous patient. Dr. Teackle concluded from this that case No. 1 was one of spontaneous cowpox. He had vaccinated, moreover, five primary and three secondary cases with portions of the crust of case No. 1, with two failures (one primary, one secondary). The cases that succeeded were markedly severe in their action, especially in the febrile symptoms, also in the glands.

Owing to circumstances over which Dr. Teackle had no control, he was not able to obtain all the matter from these cows he desired; but having encased some of the crust he had taken at his first visit in wax, he inoculated (April 20th), in the presence of Drs. Stuart and Morris, a heifer, eight weeks old, with it. He felt confident that further propagation of this new stock would cause a return to the confidence in bovine virus, which has recently been sadly shaken.

DR. JNO. S. LYNCH doubted the spontaneous origin of the affection, and thought it most probably had been caused by inoculation of smallpox virus, perhaps conveyed by people who had milked the cows by stealth, unknown to the proprietor. Spontaneous origin of smallpox or vaccinia was unknown.

DR. TEACKLE replied that these cows were kept as carefully as race-horses, and never without an attendant. Such a mode of conveyance as suggested was out of the question.

THE PRESIDENT referred to the fact that, at the time of the discovery of vaccination, and during the experiments which followed it, it was very nearly proved that the discharge from the hoofs of horses in the disease called grease would produce nearly the same effect as vaccinia in the cow. Might not the disease have been conveyed from the horses to the cows by the grooms? On motion of Dr. John Morris, seconded by Dr. Teackle, a committee of five was appointed to examine and watch the course of the vesicle in the heifer presented, and report to a future meeting.

DR. JNO. N. MACKENZIE then read a paper entitled

SOME REMARKS ON NASO-AURAL CATARRH AND ITS RATIONAL TREATMENT.

He commenced by speaking of the great prevalence of the disease in Baltimore, and remarked that it is, perhaps, the least perfectly understood of the prevalent diseases. After giving a very minute description of the disease, which he divided into two stages—first the hyperæmic and second the hypertrophic stage—and describing its various forms very minutely, with their effects upon respiration, phonation, and olfaction, he spoke of its connection with pulmonary emphysema and chronic laryngitis, and expressed his opinion that, under certain conditions, nasal catarrh may favor the development of consumption. He regarded the inflammation of the conjunctiva, so often observed in connection with nasal catarrh, as caused not by the extension of the inflammation, but, in the majority of cases, as a reflex vaso-motor phenomenon. He considered that frequently chronic catarrhal inflammation of the middle ear depended upon the changes induced through the Eustachian tube secondary to chronic nasal catarrh. Morbid conditions of the nose, however, react in another way upon the circulation and nutrition of the aural chambers, viz., through reflex agency of the vaso-motor and trophic nerves.

Dr. Mackenzie emphasized especially the *great frequency* of reflex cough as a symptom of nasal disease, and he has found in the nose a reflex sensitive area analogous to that discovered in the larynx by Störk, etc.

Systematic treatment is a *sine quâ non* for the successful management of chronic nasal inflammation. This may be divided as follows: 1. Removal of all obstructions. 2. Thoroughly cleansing and keeping clean the nasal and retro-nasal chambers. 3. Treatment on general principles of the congested and inflammatory conditions of the naso-pharyngeal membrane. He limited his remarks largely to the question of the removal of the hypertrophied membrane. As a rule, he prefers in this operation the employment of the cold steel wire snare. The operation fulfils in the simplest and most radical manner the chief indication for treatment, which is the removal of obstruction—it restores the respiratory current to its normal channel, and removes the most prolific source of the discharge. In most cases it causes the various complications, especially those of a reflex character, to disappear, and by the depletion of the cavernous cells of the turbinated bodies, it exercises a beneficial effect upon the whole area occupied by the erectile tissue. He then spoke of the second principle of treatment—cleansing—objecting strongly to the nasal douche. He gave several remedies which he had found of value in the treatment of nasal catarrh; among others, diluted alcohol, and weak solutions of bichloride of mercury, and the tincture of galanga, he objected to the use of powders, unless in an impalpable state; where there were excoriations or ulcerations, he had found the powder of calendula dusted over raw surfaces, or applied as a

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glyceride, to cause rapid healing and diminution of the discharge. During inclement weather, or when exposed to a vitiated atmosphere, he recommended, when the discharge is not profuse, a respirator of absorbent cotton—medicated or not, teased gently apart in the fingers; this teasing is very important. It is then folded lightly upon itself, and introduced into the nostril just beyond the orifice of the anterior naris. He strongly recommended oakum as a substitute for the cotton tents usually employed; he also advocated constitutional treatment. He then considered the subject of catarrhal otitis media, and concluded by showing forceps of his own device for the removal of adenoid growths. The blades are fenestrated, and slightly flattened posteriorly and superiorly to admit of perfect contact with the walls of the pharynx. Their cutting edges prolonged downward to the shank, are on the principle of the Luer bone nippers; each blade may be used as a curette, the other being fixed. The instrument may also be used for removing growths from the throat, etc.

DR. H. P. C. WILLIAMS read a paper entitled

MALARIAL FEVER IN PUERPERAL WOMEN,

giving an account of three cases. The first, a primapara, after a hard instrumental labor, was delivered of a large child with life extinct. There was laceration of the cervix and rupture of the perineum. Vaginal injections were ordered, and equal parts of tinct. of camphor and belladonna were applied to the breasts to prevent the secretion of milk. After three days the belladonna was discontinued. It was a point of interest that two days thereafter distinct symptoms of belladonna poisoning—dilated pupils, tingling, and the surface of the body becoming bright scarlet and very hot—made their appearance. The symptoms were promptly checked by the exhibition of morphia and potass. brom. Several days after this she had symptoms that at first appeared to point to septic poisoning, but from the regularity of the fever and its wide range, Dr. Williams was inclined to think it malarial. Large doses of quinine, however, did not check it at first, and it was not until six grains were given every second hour, and twelve doses had been administered, that the fever was broken. After this she went on to recovery. Another interesting point in the case was, that though the perineum had not been sewn up after the birth of the child on account of the weakness of the mother, it was found to have been almost completely restored spontaneously.

The other two cases, though not so severe, corresponded with this in the occurrence of fever, that at first seemed alarming as occurring in that condition, but which yielded promptly to quinine. Dr. Williams explained the occurrence of malarial fever on the supposition that, though they all seemed in perfect health at the time of their confinement, the malarial poison was in their systems, and the depression of their vital powers caused it to make its appearance.

REPORTS OF COMMITTEES.

DR. T. BARTON BRUNE, *Chairman of the Committee on Nurses' Directory*, made an encouraging report. A small balance had been turned into the general treasury for the use of the library, as had been ordered by the Faculty. Dr. Brune hoped that the physicians of the city would support the *Directory* to a greater extent than they had done in the past.

The *Committee to Interview the Trustees of the Peabody Library*, in regard to procuring more medical books for the library (Dr. J. J. Chisolm, Chairman), reported that the Trustees had replied that, with the funds at their disposal and with the terms of their trust, they could not procure books for their library for any special branch of professional men, but would be glad to purchase books on medicine that would be of general interest and importance. The Committee was continued to interview the projector of the Enoch Pratt Library on the same subject.

As owing to some mistake the resolutions passed last year reaffirming the faculty's allegiance to the *Code of Ethics* of the American Medical Association had failed to reach that body, DR. WILLIAM LEE moved a similar resolution to be sent to the Association this year, which was adopted.

DR. RICHARD GUNDRY moved "that a committee of five be appointed by the Faculty to represent to the Legislature of Maryland the urgent need of an institution for the care and education of feeble-minded children." Adopted.

On motion of Dr. J. R. Quinan, a vote of sympathy was passed with Dr. J. Shelton Hill, for his protracted illness.

The Publication Committee, in a special communication, informed the Faculty that Dr. J. R. Quinan had in accordance with the request of the Faculty in 1881, prepared a full and complete history of medicine in Maryland, giving biographical accounts of the physicians of the State, and a list of their contributions to medical literature, etc., with a subject index of their writings. The work was described as being very exhaustive—extending considerably over one hundred years. The committee recommended that as the work will comprise over two hundred pages octavo, that it be published separately, as a supplement to the *Transactions*, and that one thousand copies be printed, and a copy given to each member of the Faculty who has paid his dues, and that one hundred copies be given to the author, and the remainder be sold at one dollar per copy to assist in defraying the expenses of the publication. These recommendations were unanimously adopted, except that it was ordered that two hundred instead of one hundred copies be given to Dr. Quinan. The thanks of the Faculty were tendered to the author.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—DR. RICHARD MCSHERRY.
Vice-Presidents.—DRS. W. STUMP FORWOOD and JNO. S. LYNCH.
Recording Secretary.—DR. G. LANE TANEYHILL.
Assistant Secretary.—DR. ROBT. T. WILSON.
Corresponding Secretary.—DR. W. F. A. KEMP.
Reporting Secretary.—DR. R. H. THOMAS.
Treasurer.—DR. JUDSON GILMAN.

After a vote of thanks to the President for his able presiding over the meeting, and thanks to the Johns Hopkins University for the use of Hopkins Hall, the Convention adjourned *sine die*.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Sixteenth Annual Session, held at Meridian, April 4, 5, and 6, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Sixteenth Annual Meeting of the Mississippi State Medical Associaton was held at the Opera House, in Meridian, April 4, 5, and 6, the *President*, DR. WIRT JOHNSTON, of Jackson, being in the chair.

FIRST DAY. APRIL 4.—The Association was called to order at 11 o'clock, A.M.

After prayer by Rev. Joseph Bardwell, D.D., DR. J. H. BLANKS, *Chairman of the Committee of Arrangements*, introduced COL. W. H. HARDY, of Meridian, who delivered an eloquent and scholarly address of welcome.

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The roll was then called by the *Secretary*, DR. T. W. FULLILOVE, and about fifty members answered to their names. During the session twenty-nine physicians were elected members of the Association.

The PRESIDENT, DR. WIRT JOHNSTON, delivered the

ANNUAL ADDRESS.

He congratulated the Association on its substantial growth and flourishing condition, and proceeded to review the work of the Association, which had resulted in the establishment, by legislative enactment, of a State Board of Health, which has been "clothed with ample power, has abundant resources at its command, and is in a position to render efficient service to the State," and also in the law recently enacted to regulate the practice of medicine in the State. "A law," said he, "which, if it should continue in operation, and is wisely administered, is sure, in the course of time, to elevate the character of the profession. It will not only accomplish this, but will also result in even more good to the people of the State, as by it they will be protected in life from the ignorance of the incompetent, and, in purse, from the cupidity of quacks."

He then proceeded to give some interesting statistics, which the operation of the law had developed. Under Section 17 of the law, all physicians of whatever school, engaged in the practice of medicine at the date of the passage of the law (approved by the Governor, February 28, 1882), were granted license without examination by a board of censors, provided the application for license should be received by the Secretary of the State Board of Health on or before June 30, 1882. The law requires each license to be registered, within thirty days after it is issued by the Secretary of the State Board of Health, in the office of the Circuit Clerk of the county in which the licentiate resides. After June 30, 1882, no one could be granted a license without presenting a certificate of having passed a favorable examination by the Board of Censors of the Congressional district in which the applicant resides. There are two Sanitary Commissioners for each Congressional district (appointed by the Governor, on the recommendation of the State Medical Association), who are members of the State Board of Health, and *ex officio* constitute the Board of Censors of their respective districts.

The following are the statistics:

Number of licenses issued under Section 17,	1785
" " " after examination,	55
Total number of registered physicians,	1840

Each licentiate is required to designate, in his application, the school of medicine to which he belongs. This has been done, with the following result:

Regular, 1581; eclectic, 84; Homœopathic, 11; botanic, 7; botanic and eclectic, 4; allopathic and mineral, 5; eclectic and allopathic, 8; mineral, 11; allopathic and botanic, 2; eclectic or reformed, 1; hydropathic, 1; eclectic, allopathic, and Homœopathic, 1; dosimetric, 1; physio-medical, 1; idiopathic, 1; and 121 who either state no school or use obscure expressions.

The ratio of physicians in the State of Mississippi is, therefore, 1 to about every 615 inhabitants.

The President advised the Association to adopt a suitable plan of awarding prizes for meritorious essays, as a means of encouraging original research, and of elevating the literary standard of contributions.

The address was referred to a committee of three, who, after considering the subject, unanimously recommended the appointment of a committee to report, at the next session of the Association, a well-digested scheme of prize essays. The report of this committee was adopted.

REPORTS.

DR. J. M. TAYLOR, of Corinth, Chairman, read the report of the *Executive Committee*, which was received and ordered to be spread upon the minutes.

The *Secretary*, DR. T. W. FULLILOVE, made a verbal report. He stated that he had notified Hon. Frank Johnston and Hon. E. Barksdale of their election to honorary membership in the Association. (The former, a prominent member of the legal profession, and the latter, editor of the Jackson *Clarion* and member-elect of Congress, were elected honorary members during last year's session, as a tribute of recognition of the value of the services they had rendered in advancing the interests of the medical profession in this State.) He read the letters of these gentlemen accepting the honor that had been conferred upon them. Each of them paid, in eloquent terms, a warm tribute to the worth of the medical profession. The letters were ordered to be published in the *Transactions*.

DR. ROBERT KELLS, of Jackson, *Treasurer*, read his report, showing all indebtedness paid, and a balance in the treasury amounting to $364. At Dr. Kells' request, his report was referred to an auditing committee.

DR. B. F. KITTRELL, of Black Hawk, read a report of an interesting case of

CHRONIC HYDROCEPHALUS,

which he thought should be placed on record on account of the large dimensions of the head. The history of the case presented nothing peculiar, the head having begun to enlarge a few days after birth. The child (a negro male) is now in his ninth year. The circumference of the head measures twenty-eight inches, and the distance from ear to ear, over the vertex, eighteen inches. Complete ossification has taken place, except at the anterior and posterior fontanelles, and at a small space in the coronal suture on the right of the fontanelle. The child measures thirty-three inches from the acromion process to the sole of the foot.

DR. B. A. VAUGHAN, of Columbus, read a paper on

VACCINATION,

in which he argued to sustain the following four propositions:

"1st. That vaccination, if perfect and typical, is as protective to-day against smallpox as it was in the days of Jenner.

"2d. That properly transmitted bovine virus, or humanized virus of not over four cultivations, is as perfect in its protection against variola, whether it come from the 'Jenner' or 'Beaugency' stock.

"3d. That vaccine virus, of many human transmissions, is less protective than bovine virus, or the virus of a few removals from the cow, and will not produce typical vaccina.

"4th. That many failures, as well as many varied departures from typical vaccina, so often observed in the two years past, are due to the quality of and manner of collecting the lymph, as well as, in some measure, to climatic and epidemic causes, and not to vaccina pure."

DR. N. L. GUICE, of Fayette, in the discussion that followed the reading of the paper, remarked that he preferred fresh bovine virus, and insisted that the frequent failures in its use were chiefly due to the fact that most operators, forgetting that it is less soluble than humanized virus, do not take sufficient pains to rub it into the abraded cuticle.

DR. JOHN BROWNRIGG, of Columbus, remarked that he would not rely upon bovine virus, when, during the prevalence of an epidemic, he should wish to secure the speedy protection of persons who had just been exposed to the disease. He would certainly vaccinate the infant of a variolous mother with humanized virus.

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DR. R. S. TOOMBS, of Greenville, had recently used during an epidemic that had prevailed in his vicinity, bovine virus obtained from the farm of Dr. E. L. Griffin, and had been highly pleased with the result, successful vaccinations having been secured in the large majority of instances.

DR. VAUGHAN closed the discussion by insisting upon the importance of revaccination in its technical sense, that is, during the progress of vaccina, the virus should be inserted again and again, until it is proved that the subject of the operation is no longer susceptible to the influence of the virus. He also described the typical scar resulting from vaccination with genuine protective virus, and stated that it was vitally important that such a scar should be obtained.

AFTERNOON SESSION.

DR. A. P. SIMS, of Morton, presented before the Association, a case of

ARTIFICIAL ANUS

in the person of a negro man, who had received, six years ago, a gunshot wound of the abdomen. The artificial anus was situated in the right iliac region just above the crest of the ilium; this bone was injured, and, during the healing process, portions of it had exfoliated. During the past three years, a portion of what was supposed to be the inverted ilium had been gradually extruded until now ten or twelve inches of the intestine, considerably altered and hypertrophied, were outside the abdomen. The peristaltic motion of the bowel was plainly visible; the orifice, through which the feces escaped, remained at the margin of the wound where the intestine had originally adhered to the abdominal wall.

DR. S. V. D. HILL, of Macon, read an able and exhaustive paper on

RECENT ADVANCES IN SURGERY,

in which he culled from the broad field of recent surgical achievement what is most worthy of preservation.

DR. J. E. HALBERT, of Leota Landing, read a paper on

MALARIAL HEMATURIA,

in which he stated that he had had a large experience in the treatment of this formidable malady. He sums up his course of treatment as follows: "I first advise prophylaxis; purgatives of calomel in large doses, encouraged by enemata; warm bathing to promote action of the skin; sinapisms to epigastrium—ice, and, if the patient is weak, champagne; carbolic acid, in small doses; digitalis, as a gentle diuretic and heart stimulant; as astringents, gallic acid and ergotine, if the hemorrhage is continuous and exhaustive. In addition, I allow lemonade and bitartrate of potash *ad libitum*, but the sheet-anchor is quinine hypodermically. Nourish by rectum, if necessary, and avoid, if possible, giving medicines, or anything except ice, champagne, and concentrated nourishment by stomach."

EVENING SESSION.

DR. W. E. TODD, of Clinton, read a paper on

TYPHOID PNEUMONIA,

which gave rise to a lengthy discussion of the general subject of pneumonia, in which Drs. Taylor, Hill, Guice, Sale, McCallum, C. A. Rice, Toombs, Moore, Murry, Vaughan, Ward, Kittrell, and Todd, participated.

DRS. TAYLOR and HILL objected to the term *typhoid* as applied to pneumonia, because it was misleading in its suggestion of enteric complication. *Asthenic* or *adynamic* was the term which would more properly indicate the true condition. Pneumonia might occur as a *complication* during the progress of typhoid fever.

DR. E. P. SALE, of Aberdeen, protested against the routine treatment of pneumonia. He would be governed by the indications presented in each individual case: to the one, with hot skin, high temperature, and bounding pulse, he would administer aconite in suitable doses; to another, with cool skin and feeble pulse, he would give stimulants and use means to induce reaction; and to the patient, in whom the disease was simply revealing its natural history, with no special symptoms calling for treatment, he would administer nothing whatever.

DR. B. F. KITTRELL, of Black Hawk, apropos of the question whether pneumonia would induce phthisis, related the history of a case still under his observation, in which a boy (white), seventeen years of age, who had previously seemed to be the incarnation of robust health, had been suddenly seized with pneumonia, which was supposed to have originated in his imprudence the day previous to the attack, when he suddenly cooled his person after becoming overheated by unusual physical exertion. The lower lobe of the left lung was the first seat of the inflammation, which, during the latter part of the second week, suddenly extended to the upper lobe, the whole lung becoming completely hepatized. At first, the disease could not be distinguished by the physical signs from ordinary croupous pneumonia, and its true nature was not suspected until, in the third week, there was no indication of resolution in any part of the lung. At the present time, after more than three months have elapsed, while the right lung has remained free from disease, the greater part of the upper and a considerable portion of the lower lobe of the left lung have undergone caseous degeneration, and a large cavity has resulted. Adhesion of the pulmonic and costal pleural surfaces, and perforation of the intercostal spaces have occurred at two points, with local emphysemata resulting; and there is a free discharge of pus from the lower point (which had been aspirated) between the sixth and seventh ribs, below and to the right of the mamma. The father and the mother of the boy, both over fifty years of age, have always enjoyed ordinary health, but upon inquiry, it has been ascertained that several near relatives on the maternal side have died from pulmonary consumption.

All the speakers, who alluded to the use of opium in the treatment of pneumonia, agreed in regard to its inestimable value.

(*To be concluded.*)

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

THE CODE CONTROVERSY.—The New York Society for the Maintenance of the National Code of Ethics have now enrolled more than 400 physicians residing in the city.

The society organized to prevent the reënactment of the National Code has just published a list of 205 members, of which there are:

Names not in the *N. Y. Medical Register*	20
Names not in the *Register* and not in the *City Directory*	15
Dentists	2
Veterinary surgeons	2

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WHEELING, WEST VA.

(From our Special Correspondent.)

SMALLPOX.—Twenty cases of smallpox have just been discovered in Mercer County, West Virginia, and the State Board of Health has been appealed to for help.

TORONTO.

(From our Special Correspondent.)

THE TWO SCHOOLS OF MEDICINE in this city have closed for the session. Nineteen of the students of the Toronto School of Medicine received the degrees of M.D., C.M., from Victoria University, and over twenty students of Trinity Medical School were successful in obtaining their degrees at Trinity University. A good number from both schools presented themselves for degrees at the University of Toronto, where the examinations in medicine are just complete, but the results are not yet known.

A MEDICAL COLLEGE FOR WOMEN is about being established here, and the announcement of the Faculty will probably be issued in a few days. It will be the first of the kind in Canada, and the promoters have every confidence in the success of the scheme. Already a fair number of students have signified their intention of attending, some of whom have completed part of their course at various colleges. A large number of sympathizers are said to be willing to give liberal contributions towards the endowment of the college.

THE ONTARIO MEDICAL ASSOCIATION is announced to meet in Toronto on the 6th and 7th of June.

THE STATE MEDICAL SOCIETY OF WISCONSIN.—The thirty-seventh annual session was held at Milwaukee last Tuesday. In accordance with the expressed wish of many members, no general business was transacted, but a quorum of the Society met and appointed delegates to the approaching session of the American Medical Association, and the Society then adjourned to a later date, to be hereafter announced.

PUBLIC HEALTH LAW IN WISCONSIN.—The State of Wisconsin has recently enacted a law which makes obligatory:

1st. The organization of a board of health in every town, village, and city in the State, within thirty days after each annual election.

2d. The appointment of a health officer by every board of health within ten days after its organization.

3d. The report of contagious diseases by all physicians.

STATE MEDICAL SOCIETY MEETINGS.—The Indiana State Medical Society meets on the 8th inst.; the Pennsylvania State Medical Society, at Norristown, on the 9th; and the Michigan State Medical Society, at Kalamazoo, on the 9th.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—DR. JOSEPH W. HOWE has resigned his professorship of clinical surgery in Bellevue Hospital Medical College, in the following letter to the faculty, which explains his reasons: "Having been informed that unless I could join with the rest of the faculty in supporting the code of the American Medical Association my resignation would be acceptable, I hereby tender my resignation as Professor of Clinical Surgery in Bellevue Hospital Medical College."

UNIVERSITY OF THE CITY OF NEW YORK.—Dr. J. W. S. ARNOLD has resigned the professorship of physiology in this institution, and Dr. Lewis A. Stimson has been elected to fill the vacancy.

DR. FRIEDRICH AHLFELD.—The Emperor has appointed DR. F. AHLFELD, regular professor in the University of Giessen, to the Chair of Medicine in the Faculty of the University of Marburg.

PRIZE OF 50,000 FRANCS.—The French Government has offered a new prize, to be called the VOLTA PRIZE, for the best paper on the "Application of Electricity to the Production of Heat, Light, Chemical or Mechanical Uses, and Use in Telegraphy and Therapeutics." The prize is international, and will be awarded on June 30, 1887.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending April 21, indicate that influenza, consumption, and whooping-cough have increased, and inflammation of the brain and diarrhœa have decreased, in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 21 and since at thirteen places, scarlet fever at eighteen places, and measles at twenty-two places.

Four cases of measles came with immigrants arriving at Port Huron April 20.

OBITUARY RECORD.—PROF. MAURICE KRISHABER, the eminent laryngoscopist, has recently died, in Paris, of typhoid fever. Thoroughly broken down by constant anxiety during the recent illness of Mme. Krishaber, the shock of her death was too much for him, and he succumbed to the disease which developed in his overtaxed system.

In laryngology, Prof. Krishaber was an original and widely known worker, and was the author of valuable works and papers, relating not only to this special department, but to other branches of medicine, notably in the department of diseases of the nervous system. He was junior editor of the *Annales des Maladies de L'Oreille, du Larynx*, etc., and contributed to it some of its most valuable papers.

—— The sudden death of DR. BLOCK, of Dantzig, the well-known experimenter in lung resections, is announced.

—— *União Medica* announces the recent death of DR. CYPRIAMO BARBOZA BETTAMIO, Professor of Laryngology in the Rio de Janeiro Polyclinic.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 23 TO APRIL 30, 1883.

CLEARY, PETER J. A., *Major and Surgeon*.—So much of Par. 10, S. O. 273, November 23, 1882, from this office, as directs him (then Captain and Assistant Surgeon) to report in person to the Commanding General, Department of Dakota, is revoked, and, upon the expiration of his present sick leave of absence, to report in person for assignment to duty in the Department of the Missouri.—*S. O. 95, A. G. O., April* 25, 1883.

HOPKINS, WM. E., *First Lieutenant and Assistant Surgeon*.—Now on leave of absence in New York City, to be relieved from duty in the Department of the East, and assigned to duty in the Department of Arizona.—*Par. 7, S. O. 95, A. G. O., April* 25, 1883.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL LECTURES.

MALARIAL HÆMATURIA.

THE ADDRESS IN MEDICINE

Delivered before the Medical Society of the State of Pennsylvania, at Norristown, May 9, 1883.

BY JAMES TYSON, M.D.,

PROFESSOR OF GENERAL PATHOLOGY AND MORBID ANATOMY IN THE UNIVERSITY OF PENNSYLVANIA; ONE OF THE PHYSICIANS TO THE PHILADELPHIA HOSPITAL, ETC.

PERHAPS the most important form of hæmaturia and hæmoglobinuria resulting from general causes is that due to malarial poisoning. I prefer the term malarial to intermittent or paroxysmal, not only because it more precisely indicates the cause of the condition, but also because the condition itself is by no means always intermittent, but sometimes continues without interruption until checked by appropriate treatment, and I have known it to continue uninterruptedly for a year, notwithstanding all treatment.

The first complete report of an undoubted instance of this affection appears to have been published by Dressler, in 1854,[1] although incomplete and uncertain cases were reported prior to this date—one as early as 1832,[2] by Elliotson. Dr. George Harley[3] early contributed to our accurate knowledge of the subject in 1865, and since then numerous papers and reports of cases have appeared in English and American journals, the southern part of the United States being a fertile scene of the affection, while it is by no means rare in our own State.

Two degrees of the disease are met with, a milder form in which other symptoms as well as the hæmaturia are less pronounced, and of which instances occur in the Middle States as well as the South and West of this country. Of this kind seem to be the cases studied by Harley and other English physicians. In addition to this, there is a second more malignant form, attended by great prostration, vomiting, and yellowness of the skin, along with copious discharges of bloody urine. Instances of the latter are numerous in the Southern States of this country, where they have recently been studied with considerable care; also in the East and West Indies, and in tropical countries generally. In neither degree of the disease is it necessary that the red corpuscles of the blood should be present. They may be represented by their coloring matters alone, when the condition is called a hæmoglobinuria or a hæmatinuria.

To ourselves, at this time, the milder, but sometimes quite intractable form, is more interesting. The victims who, in my experience of seven cases, have invariably been men, and I believe this is the experience of others also, are generally able to recall a history of exposure to malaria, and often of distinct attacks of malarial fever, intermittent and remittent. The hæmaturia appears suddenly, and when paroxysmal may occur daily, or on alternate days, or a couple of times a week, or even at longer intervals. When the attacks occur at longer intervals, say of ten days or two weeks, if the disease is left alone the interval is apt to gradually diminish, until the passage of bloody urine becomes daily. The urine in the morning may be perfectly clear, and at two o'clock is evidently bloody. It continues so through one or two acts of micturition, and then becomes clear again; or it may be bloody on rising and clear up by noon. Sometimes the bloody urine is preceded or accompanied by a sense of weariness and chilly feeling, or sometimes simply by cold hands and feet, or by cold knees, or by pallor and blueness of the face, or by accelerated pulse, or by no other symptoms whatever. There is sometimes a sense of fulness in the region of the kidney and sacrum.

Dr. Harley states that in one of the two cases which he reported, there was a slight jaundice, and in the second a "sallowness which appeared to be due to a disturbance of the hepatic functions," but in none of the cases which I have met was this symptom present. In the more malignant form occurring in the tropics, and Southern States of America, jaundice is a constant symptom.

While a majority of cases of malarial hæmaturia are intermittent, many are continuous, and of my seven cases only two were distinctly intermittent. One of these cases I published in a clinical lecture in the *Philadelphia Medical Times*, as far back as September 1, 1871.

Negroes are not exempt from this milder form of the disease, as they seem to be from the more malignant form of the South. While writing this paper, I was consulted by a negro, thirty-one years old, who had a true malarial hæmoglobinuria which yielded promptly to the treatment by quinine. But this was the only case of a negro out of seven.

Physical and chemical characters of the urine.—The urine is usually acid in reaction when passed, sometimes neutral, rarely alkaline, and ranges in specific gravity from 1010 to 1028. It is always albuminous, and always tinged by blood-coloring matters, the depth of color varying from the trifling degree known as "smoke-hued" to a dark-red or claret color. Sometimes it is even darker and is often compared to porter, though this degree of coloration is more characteristic of the malignant form. The urine deposits a dark, reddish-brown sediment, which is generally copious, but varies with the degree of coloration of the urine. This sediment is made up chiefly of red blood-disks or the granular debris resulting from their disintegration.

Casts of the uriniferous tubules are also often present. They are usually made up of aggregated red blood-disks or the granular matter referred to; but they may also be hyaline, or hyaline with a moderate amount of granular matter attached. Granular urates, also, at times contribute to the sediment, and also adhere to the casts.

That red blood-disks are at times exceedingly scarce and even totally absent at the very moment when the urine is passed is a well-recognized fact; while that the coloring matter present is still that of the blood, even though no corpuscles are present, is easy of

[1] Dressler, Ein Fall von intermittirender Albuminurie und Chromaturie, Virchow's Archiv, Bd. 6, S. 264, 1854.

[2] Harley, George, Intermittent Hæmaturia, Medico-Chirurg. Trans., London, 1865.

[3] Elliotson, Clinical Lecture on Diseases of the Heart, with ague (and hæmaturia), London Lancet, 1832, p. 500.

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demonstration by the production of Teichmann's hæmin crystals[1] or by spectrum analysis.

In the matter of the presence or absence of blood-disks, it is to be remembered that these may be present at the moment the urine is passed, but disappear by subsequent solution if the urine happens to be alkaline or becomes so secondarily. It is an interesting fact, too, that the colorless blood-corpuscles are often present intact, even when the red disks are absent. While I have frequently examined urine sent me from the South, in which only the coloring matter of the blood and no corpuscles were present, but one of the cases coming under my own observations furnished urine of this character.

Pathology and Morbid Anatomy.—The pathology of malarial hæmaturia consists, as yet, chiefly of theoretical deductions. We can only conclude that the malarial poison acts upon the blood and bloodvessels, impairing the integrity of both. This goes so far occasionally as to produce an actual destruction of blood-disks, and always so alters the capillaries that they permit the transudation of blood elements ordinarily retained.

The morbid anatomy is scarcely more precisely defined. Ponfick[2] goes so far as to say that the exudation of hæmoglobulin is not possible without the concurrence of marked diffuse nephritis. Recently, Lebedeff[3] has sought to investigate the more minute alterations of the kidney in hæmoglobin exudation, but without very definite results. These, however, on the whole, seem to confirm Ponfick's view as to the presence of an inflammatory process.

Diagnosis.—The diagnosis of this condition is not usually difficult. We have first to determine whether the hemorrhagic discharge is from the kidney rather than the bladder or ureters. This is certain if tube-casts are present. But tube-casts are not always present even when the hemorrhage is from the kidneys. The absence of clots and of vesical irritation, and of pain in the course of the ureters, is characteristic of blood from the kidneys. Finally, all hæmoglobinurias are renal.

It being certain that the blood comes from the kidney, we have to distinguish it from that due to cancer, to calculous irritation, and to cachexias, as purpura and scurvy; or to grave forms of infectious disease, septicæmia, pyæmia, etc.; or, finally, to poisonous substances introduced into the blood, such as arsenic, iodine, arseniuretted hydrogen, carbonic acid and carbonic oxide gas, and even certain species of edible fungi.

In the first place, the diagnosis is greatly aided if it is found we have to do with a hæmoglobinuria rather than a hæmaturia. For although the former condition is produced by toxic and septic agencies of another kind, the attending symptoms, when it is thus produced, are so characteristic that it is not likely that error can be made.

To aid in distinguishing it from cancer, we have the history of malarial exposure, and often that of other forms of malarial disease; and, notwithstanding the seeming drain upon the system, none of the cases I have ever seen present the profound anæmia of cancer. The bloody discharge in cancer of the kidney is always a true hæmaturia—there are always blood-disks in the urine. There is often pain in the region of the kidney in cancer, but never in malarial hæmaturia.

In calculous disease there is almost always pain before or during the hæmaturic attack, and characteristic crystalline sediments often appear in the urine.

The disease, being comparatively rare in this latitude, is sometimes overlooked on this account. Of the seven cases which I have noted during fifteen years, five originated in Pennsylvania, one in New Jersey, and one in North Carolina.

Treatment.—The treatment is distinctly that of malarial disease, and I have seldom seen more brilliant and satisfactory results than have followed the use of *quinine* in a case accurately determined, although such results are not invariable, and I have known the disease to resist for a long time the most thorough and judicious use of anti-malarial remedies. Usually, however, I take hold of a case of this kind with considerable confidence. When there are distinct remissions, my practice has been to administer sixteen to twenty grains of sulphate of quinia in the usual manner of anticipation of the paroxysm in intermittent fever—from three to five grains every hour until the required amount is taken; the whole amount may be taken in two doses or even in one dose. Where there is no distinct remission I more usually direct three to five grains every three hours, until the hemorrhage ceases or decided cinchonism is produced.

The advantage well known to accrue in malarial disease from the combination of mercurials with quinine, applies to hemorrhagic malaria as well, although I usually reserve the mercurial until I have ascertained whether the simple quinine treatment answers the purpose. If the usual method fails, I give eight or ten grains of calomel in the evening followed by a saline in the morning, before reinstituting the quinine treatment. In the case of the colored man alluded to, who had malarial hæmoglobinuria, thirty-six grains of quinine failed to break the attack; but the same quantity given after ten grains of calomel had acted, succeeded.

Where these means failed, I have not found the other methods of treatment commonly resorted to in obstinate malarial disease to be any more efficient. I allude to the treatment by *arsenic*, or by *iron* and arsenic. Indeed, in the only two cases in which, after failure with the quinine treatment, iron and arsenic were used at my suggestion, they failed absolutely. In the one case under the care of my friend, Dr. James L. Tyson, this treatment was carried out most faithfully. After four weeks' treatment with quinine without effect, Fowler's solution was given at first in five-drop doses three times daily, subsequently increased to ten, and fifteen, along with twenty and thirty-drop doses of tincture of the chloride of iron, until œdema of the eyelids occurred, when the arsenic was discontinued, but the iron continued. In two or three days the arsenic was recommenced in three and four-drop doses for three or four weeks longer without effect. Fluid extract of ergot in twenty-drop doses was then substituted for the iron, alternating with the arsenic for two weeks longer, when some slight favorable change was apparent, but it was temporary. Repeatedly throughout the treatment the patient complained of weariness and backache, cold feet and knees, headache and acceleration of pulse, and a feeling of "utter wretchedness;" and then again he would feel quite comfortable for a day or two, but with little or no change in the urine, except occasionally in the morning, when it would sometimes be quite light-hued, but after break-

[1] Place a drop of the sediment upon a glass slide and allow it to dry. Mix thoroughly with a few particles of common salt and cover with a thin glass cover, under which allow two or three drops of glacial acetic acid to pass. Carefully warm the slide for a few seconds over a spirit-lamp, and when most of the acetic acid is evaporated, examine by the microscope. Hæmin crystals will be seen to crystallize out as the mixture cools.

[2] Ponfick, Ueber die Gemeingefährlichkeit der essbaren Morchel. Virchow's Archiv, Bd. 88, S. 476, 1882.

[3] Lebedeff, Zur Kenntniss der feineren Veränderungen der Nieren bei der Hämoglobinausscheidung. Virchow's Archiv, Bd. 91, S. 267, Feb. 1883.

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fast would again assume its bloody character. A sojourn at the sea-side for two weeks was without effect.

It will appear from the above that *ergot*, which has been found useful in some forms of hæmaturia, is of little service here, as is attested by two other cases, in which I tried it faithfully. At the same time, it is a remedy which should be tried in case of failure with others.

The usual *astringents*, mineral and vegetable, of known efficacy in the treatment of hemorrhagic conditions, should be used alone, or in conjunction with the specific anti-malarial treatment, after the latter has been found of itself insufficient. To this class of remedies belong the mineral acids, persulphate of iron, acetate of lead, alum, gallic acid, catechu, kino, etc.

Rest is certainly an important adjuvant in the treatment of this form of malarial disease. I have known a recurrence to take place after a long drive in a carriage.

It is claimed for many *natural* mineral *waters* that hemorrhage from the kidneys is one of the affections cured by their use. *Chalybeate* and *alum* springs might be expected to be of advantage by the local action of these astringents in their transit through the kidneys, but my personal knowledge is limited to a single case. The results in this seemed, however, of such a decided character, that I report them, without desiring to attach to a single case an importance greater than it deserves. The patient was a lawyer, who consulted me in June, 1881, at the suggestion of Dr. W. W. Covington, of North Carolina. He had frequently had "chills," and a congestive chill in 1873. Three months before I saw him, he began to pass bloody urine. He had no other symptoms, except a soreness and weakness in the neighborhood of the sacrum, extending into the outer part of the left thigh. The urine passed for me at the time of his visit was dark reddish-brown in color, acid in reaction, had a specific gravity of 1028, and deposited a sediment of almost tarry consistence, which was made up almost entirely of blood-corpuscles, and was, of course, highly albuminous. There were no tube-casts. He had been a dyspeptic since seventeen years of age, and medicines disagreed with him; but he was treated faithfully with quinine, iron, arsenic, ergot, benzoate of lime, all without the slightest effect. At the end of about a year from the time he consulted me, he heard of the Jackson spring, located in Moore County, North Carolina, fifteen miles distant from Manly Station, on the Raleigh and Augusta Railroad. He went there, and remained one week. He states that, for the first two or three days, the water acted decidedly on his kidneys, and he voided a number of clots of blood. *On the third day all traces of blood disappeared*, and it recurred but once since, on a very cold day, in November last, but again disappeared after a day or two in the house. This statement is so direct, and my patient is so intelligent and reliable, that I could not but be impressed by it, and I am quite anxious to repeat the remedy on another case. Unfortunately, no precise analysis of this water seems to have been made; but, from what my friend writes, it evidently contains iron and sulphur, and magnesia is also said to be present. It is promptly diuretic.

The following are some of the chalybeate and alum springs, the waters of which one would expect to be of service in hæmaturia, and some of which have a reputation for efficacy therein: Orchard Acid Springs, New York; Rockbridge Alum Springs, Pulaski Alum Springs, Bath Alum Springs, Stribling Springs, and Bedford Alum Springs, all in Virginia. In all of these waters, iron and alum are both present, accompanied, in many instances, by free sulphuric acid, by which their efficiency is increased. In one of my cases, the hemorrhage disappeared temporarily under the use of the water from the Bedford Springs, Penna., but again returned. These waters contain a little iron, but no alum. Subsequently, the same patient was promptly relieved by quinine, which had not been previously tried.

Malignant Malarial Hæmaturia.

The second more serious form of this disease, as it occurs in the tropics and the southern part of the United States, is characterized by such increased intensity of all the symptoms that it may be well called "malignant." Singularly, however, the disease has seemed to be much more prevalent during the last fifteen years. My attention was first called to it in September, 1868, when I received specimens of urine and the history of some cases from Dr. R. D. Webb, of Livingston, Ala., who wrote also that it was not known in that part of his State, at least prior to 1863 or 1864.

In this, as in the milder form, there is a distinct but more invariable history of malarial exposure, and the attack often begins as an ordinary case of chills and fever, there being often one or two paroxysms before the hæmaturia appears. At other times, the hemorrhage ushers in the disease suddenly. The urine is often black and almost tarry in consistence, and passed in unusually large quantities—it is said as much as a pint every fifteen or twenty minutes until a couple of quarts have been passed, or one or two gallons in the course of twelve hours. But after twenty-four hours, the quantity diminishes. Epistaxis sometimes occurs, but is not often profuse. Distressing nausea and vomiting of bilious and even black matter, like that of "black vomit," also occur. Intense jaundice rapidly supervenes, said to come on sometimes in the course of an hour, often in from two to six hours. The tongue is brown and dry. The bowels are at times constipated, and at others loose. Although the patient may be feverish at first, with a temperature of 104° to 106°, and the skin dry, the pulse rapidly becomes small and feeble, until it is scarcely perceptible. Drowsiness and coma sometimes intervene, and at others the mind is clear until the moment of death, which frequently supervenes within twenty-four or sixty hours; or the symptoms may subside, to be repeated again the next day, if not prevented by treatment. If recovery takes place, which it sometimes does, and lately more frequently, convalescence is slow and tedious, the patient remaining for weeks in an enfeebled and anæmic state.

In this form of the disease especially, it often happens that the coloring matter only and the debris of blood-disks are found in the urine, very few and often no entire ones being discernible—in other words, we have a true hæmoglobinuria or hæmatinuria. The urine is, of course, albuminous. A specimen recently received from North Carolina, and analyzed by Prof. Wormley, contained no corpuscles, but revealed the spectroscopic band characteristic of hæmoglobin. It contained two and a half per cent. of urea. The specific gravity of the urine ranges between 1010 and 1020, being lower when it is copious.

As to the jaundice, it is evidently a hæmatogenetic, and not a hepatogenetic form with which we have to deal. It is due, not to the retention of bile, but to the disintegration of blood corpuscles, and the solution of their coloring matter which diffuses through the tissues and stains them yellow or yellowish-green. This form, too, apparently is more frequent in males, and negroes appear to be exempt. This is not the case with the milder form, for it will be remembered that one of my patients was a negro.

Autopsies reveal the same intense yellow coloration

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of internal organs—lungs, liver, spleen, stomach, kidneys—anæmia rather than congestion, while the blood is dark-hued and is indisposed to coagulate. The spleen is often enlarged.

The *treatment* for the breaking of the paroxysm is preëminently quinine, or quinine with mercurials; and although this does not always succeed, there seems to be no other remedy. The quinine may be given hypodermically. The nausea has been controlled by morphia and lime water, by carbolic acid, and by creasote. In addition, restorative measures are necessary, including the free use of stimulants. Turpentine has been used in large doses (f3j), but this does not seem a very rational treatment.

ORIGINAL ARTICLES.

THE USE OF THE MODERN DWELLING-HOUSE AS A MATERNITY.

BY F. A. BURRALL, M.D.,

PHYSICIAN TO THE PRESBYTERIAN HOSPITAL; MEMBER OF THE MEDICAL COMMITTEE, NEW YORK INFANT ASYLUM, ETC.

THE principal aims in the establishment of a maternity, as usually understood, are the purchase of a suitable piece of property upon which buildings adapted for the special object may be placed, and then the erection of the buildings. These are the objective points most prominent in such an effort, and require so much time for their accomplishment that a beneficent work may often be delayed for months or years.

The end in view is the carrying on of an obstetric service with the least amount of sickness or death, and the question arises, may not such an end be attained without the usual delays? This matter has a special interest in the growing medical history of this country, since infant or foundling asylums, with the obstetric service incident thereto, are likely to be established in the larger cities of the Union, and the fewer obstacles which stand in the way, the more easily are they inaugurated, and the more promptly may such a work be begun.

Is it necessary to purchase land and erect buildings for the purpose? May not the modern dwelling-house serve the want? and if so, for how long a time can such a house be used satisfactorily?

Such an experiment has been tried in New York, and it seems desirable to place the results on record for guidance under other circumstances of a similar character.

The Managers of the New York Infant Asylum opened the house, No. 24 Clinton Place, New York, in November, 1871, as a house of reception for unmarried pregnant women, as well as abandoned children of two years old and under, and it was used for "lying-in service." The house was about 25 by 50, of brick, and had three stories, with attic and basement. It was in a central part of the city, and had the usual appointments of gas and water. It was heated by furnace and grates, and in one of the rooms by a stove. In short, it was a dwelling-house which had become somewhat old-fashioned as compared with the pretentious and complete structures of recent years. During the first two years I attended to the confinements, then resigned, and Dr. H. D. Nicoll took charge of the cases until October, 1875, when, as the service became more arduous, Dr. E. L. Partridge was appointed assistant physician, and remained in attendance until the closure of the building for lying-in purposes, October 13, 1876. From the commencement antiseptics were used, both in the washing of the wards and as local applications to patients during lying-in. Isolation of cases in the least suspicious was carried out as far as practicable. Sponges were discarded, and the idea of preventing puerperal contagion was kept constantly in view. One of the rules of the house, adopted at a meeting of the Medical Committee, was, "that the attending obstetrician must always wash his hands thoroughly, annoint them, and surround his wrist and forearm with a clean towel before making the usual examinations." The institution labored under the disadvantage of keeping lying-in women and children permanently under the same roof. At first this was a necessity, but other buildings were afterwards secured, and the policy was then maintained of reserving 24 Clinton Place for the obstetric service, and transferring the children, and mothers with very young children, to these other buildings.

From the first birth, which occurred December 14, 1871, until January 1, 1873, there were twenty-nine deliveries. Among these cases were two in which the forceps was used. No deaths and no zymotic diseases occurred. During the year ending January 1, 1874, there were fifty-five births, with no death of mothers. There was one case of metritis. From January 1, 1874, to January 1, 1875, there were seventy-five births with one death of a mother from uræmia with fatty degeneration of kidneys and metro-peritonitis. No zymotic disease prevailed.

During 1875, the house adjoining No. 24, which was on the whole similar in its construction, was rented to accommodate the increasing number of patients. Cases of emergency were also received from the Commission of Public Charities, which apparently rendered the asylum more likely to become infected, as many of this class of cases came from the filthier quarters of the city. Two doors, cut through the intervening wall of the buildings, one on the third and one on the parlor floor, afforded intercommunication.

In January, a case of erysipelas appeared in No. 24 Clinton Place, two weeks later a case of scarlet fever made its appearance, and one week afterwards three women developed symptoms of mild septic poisoning. Another case of erysipelas also made its appearance. These indications of an epidemic were promptly met by changing the lying-in ward temporarily and practising fumigation.

During this year there were one hundred and sixty-one deliveries, of which thirty-five were ambulance cases. One adult died from puerperal convulsions, the patient having previously suffered from epilepsy. There were two twin births, twelve deliveries with the forceps, and one craniotomy.

No. 26 Clinton Place was given up May 1, 1876, and no more ambulance cases were received. Up to October 13, 1876, when the last delivery occurred in No. 24 Clinton Place, there were eighty-four cases of confinement during this portion of the year

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1876, with one death from puerperal fever and one from uræmic convulsions. A patient was transferred to the branch of the asylum in Sixty-first Street, and had severe puerperal fever, but recovered. There were also two cases of puerperal fever at No. 24 Clinton Place, which recovered.

Scarlet fever occurred once in the Institution before it was given up for obstetric uses, a child being the victim, but no second case followed, nor did there seem to be any modification of the lying-in condition in consequence. Every precaution was taken to insure this result.

A summary of the obstetric work done in 24 and 26 Clinton Place, shows that from Dec. 14, 1871, to Oct. 13, 1876—a period of about four years and ten months—there were 399 deliveries, with 5 deaths, only one of which was from puerperal fever. The others were, one from phthisis; one from uræmia, with fatty degeneration of the kidneys and metro-peritonitis; one from convulsions, in an epileptic patient; and one from puerperal convulsions.

A majority of the inmates of the Institution were primiparæ, and many had taken dangerous drugs before entrance, for the purpose of producing abortion and avoiding social disgrace. Chloroform was used when anæsthesia was necessary for obstetrical operations, with no unpleasant consequences.

The mortality from zymotic disease was, consequently, one in 399 cases, and 5 from all diseases.

The following table gives statistics relating to the lying-in hospitals of New York.

	Women Confined.	Deaths.	Per Cent.
Lying-in Asylum, 1856-76,[1] (Marion St.)	1923	21	1.1
N. Y. Infant Asylum, 1872-1876, . .	399	5[2]	1.2
Infirmary for Women and Children, 14 years, ...	995	12	1.2
1870-1876, ...	623	8	1.3
Nursery and Child's Hospital, (*a*) City, 1867-1876, ...	1479	60	4.1
(*b*) Country, 1872, and 1874-1877, .	365	11	3.0
Charity Hospital, 1874-1876, . . .	1381	36	2.6
Emigrant Hospital, 1868-1876, . .	3766	99	2.9

It has been estimated that one death occurs in 120 deliveries, but this is a crude method of calculation, something as if one should collect the results of ovariotomy and formulate a proposition that one death occurred in so many ovariotomies, without noticing the fact that this mortality may be made to vary by the neglect or observance of certain precautions. As compared with the results of other lying-in institutions, the record of Nos. 24 and 26 Clinton Place may be regarded as very satisfactory. It was felt, however, that the buildings were no longer tenable for lying-in purposes, but the experiment proved that, at least in this case, the modern dwelling-house had, for a time, been available for the purposes of a maternity.

As compared with the mortality in the present lying-in department at the buildings on the corner of Sixty-first Street and Tenth Avenue, the modern dwelling has still a favorable record. This branch of the institution is situated on high ground, with dry soil and good facilities for drainage, and the site would be supposed to offer decided sanitary advantages. The same policy of cleanliness, and the use of antiseptics and rotation of lying-in wards have been advocated, and when the service is transferred from one ward to the other, the ward which is left is thoroughly fumigated. A maternity cottage, separate from the other buildings, has been erected here, but it may be remarked, *en passant*, that since the opening of this cottage it has, from some unexplained cause, developed the presence of puerperal disturbants more than the wards in the pavilion or main building near.

Of the 577 women delivered in the buildings at Sixty-first Street from August, 1877, to January, 1882, 5 have died from puerperal fever, 1 from puerperal convulsions, 1 from uræmic convulsions, and 1 from puerperal septicæmia. From other than puerperal diseases there have been 8 deaths, making a total of 16 from all causes. This is an increase in the rate of mortality when compared with that of 24 and 26 Clinton Place, and yet the list is here also comparatively free from zymotic diseases.

The obstetric teachings drawn from the records of the New York Infant Asylum are in favor of cleanliness and the use of antiseptics, a lying-in service of moderate numbers, frequent changing of wards, and isolation of suspected cases. Occasionally a number of those recently confined would develop unusually high temperatures, and this circumstance was always regarded with anxiety and watchfulness, as indicative of the presence of some baleful influence. It has sometimes preceded puerperal disease. This rising of the mercury was the earliest symptom of coming trouble, and, in fact, the thermometer in the lying-in ward is an obstetric barometer which announces to the physician the approach of a coming storm; the thermometer, by the rising, as the barometer by the falling column.

A disadvantage of the dwelling-house for lying-in uses arises from the fact that patients who may be in the incubative period of a contagious disease are admitted directly into the wards. This could be obviated to some degree by having two houses adjacent, and using the upper portion of one for newly admitted patients. But it may also be said that this disadvantage is common to many hospitals. An advantage is evident when it is borne in mind that, like a tent, the dwelling-house may be promptly abandoned, if it becomes infected. The sentiment of modern sanitary construction is in favor of temporary shelters. Vast piles of granite may make charity conspicuous and proud, but these great buildings foster zymosis, as carcasses breed maggots.

The question arises, whether a building which has been used as a maternity remains infected, so as to render it objectionable for future tenancy, especially of those likely to become mothers. To learn this, it would be necessary that a confinement should have taken place in a building which had been used for lying-in purposes, and the result be noted. Such evidence I have been unable to secure, but have learned that there was a record of only one

[1] On Lying-in Institutions, by Henry J. Garrigues, A.M., M.D. New York, 1878.

[2] Only one of these was from puerp eral fever.

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death in the fifteenth ward—where the buildings of which I have written were situated—from puerperal fever during 1877, and this was many blocks away. Dr. John T. Nagle, of the Metropolitan Board of Health, kindly informed me, in a note dated Oct. 28, 1882, that, "I have found in searching the records from 1880 and 1881 to date, that there was one death—a child under five years of age—from scarlatina at 26 Clinton Place, in 1881; there were no deaths in 24 Clinton Place, 1880, to date." Hence the evidence, as far as it goes, is rather against the existence of any permanent poisoning of such buildings. Besides, if necessary, fumigation could be practised when the buildings were abandoned for hospital uses.

TREATMENT OF ULCERS BY MECHANICAL CONTRACTION OF THEIR AREA.

BY WILLIAM PENNY, M.D.,
OF GALVESTON, TEXAS.

J. H., came to me from the country, suffering from a severe scalp wound over four inches in length, situated on a line with the junction of the left parietal and frontal bones. The wound was gaping widely, secreting pus profusely, and extremely irritable. I shaved the scalp and applied strips of adhesive plaster, but finding that I could not get sufficient traction in this way, I applied strips of plaster nearly as wide as the wound was long, with a series of holes punched on the side next the wound, through these holes I passed a cord, lacing the two strips together like a shoe. The patient came back after a few hours to have the lacing tightened, saying that it made the wound more comfortable. Seeing that the retraction of the edges of the wound was due to the contraction of the cut fibres of the occipito-frontalis, as well as of the muscular and elastic fibres of the derma, I substituted a rubber cord for the non-elastic one in use. The next day the patient returned, highly pleased at having spent such a comfortable night. I then removed my strips with the lacing, substituting strips of adhesive plaster with hooks on the end which was placed next the wound, using small rubber bands for connecting the opposing strips. This completed the dressing, and is the form which I now use.

The continuous traction and moderate compression exerted by this dressing relieves the ulcer of its hyperæmic condition; its thickened edges soften down; the excavation fills rapidly, and the remaining cicatrix is small and remarkably flexible.

I have used this strapping in a large number of cases, including varicose ulcers of the leg; syphilitic ulcers upon the scalp, leg, body, etc., some of large size, with the most satisfactory results in all the cases treated. Recently I used this dressing in two ulcers: one on the outer aspect of the arm just above the elbow; the other over the tibia below the patella. We all know the difficulty of healing an ulcer near a joint owing to the great motility of the parts. The strapping gave physiological rest to the structures, and cicatrization proceeded rapidly.

A short time ago I applied the strapping in a case where the breast was amputated for cancer. In this case there was a very large gap to be filled. Under the steady traction of the rubber bands the flaps approached each other, and in twenty-four hours the wound was closed.

One of the chief advantages of this strapping is the great saving of time in dressing wounds. The rubber connecting bands can be removed in a moment's time, the wound or ulcer dressed, and in less time than it would require to remove the ordinary adhesive strips.

MEDICAL PROGRESS.

TREATMENT OF FISTULA IN ANO.—During a discussion at the Société de Chirurgie in October last, on a paper communicated by Dr. Queirel, of Marseilles, M. VERNEUIL argued that the elastic ligature—though probably suitable in cases of small anal fistula, without diverticula or undermining—had no advantages over the thermo-cautery, by which the division could be rapidly effected. The bistoury, he holds, ought to be abandoned in the treatment of anal fistula, as it exposes the patient to the risks of hemorrhage and erysipelas. The thermo-cautery never causes primary, and is rarely followed by secondary hemorrhage. In the use of the ligature, the patient is not free from the risk of secondary hemorrhage. Relapse is to be feared in one or other of two different conditions. Most frequently it occurs as a consequence of an incomplete operation. In phthisical subjects relapse takes place, no matter what method has been employed. With the ligature the operation is likely to be incomplete; for, in order to remove the fistula, it is necessary to follow all its prolongations. If each of these be treated by a ligature, the operation becomes more complicated than an application of the thermo-cautery. One of the disadvantages of the ligature is the pain to which it gives rise. A young woman to whom Verneuil applied a ligature for the treatment of fistula, after three nights of insomnia through intense pain, died ten days later from pneumonia. M. Verneuil thinks that patients as a rule are not able to follow their occupations during the treatment by ligature; besides, he would not under any circumstances permit any patient to move about for some days during such treatment. In a diabetic patient, M. Verneuil would prefer the use of the actual cautery to that of the bistoury or of the ligature. The ligature, it is held, is impracticable in many cases in which the fistula is long and the walls are thick, and when there are many prolongations. It will, of course, be preferred by timid subjects, but in employing the thermo-cautery the surgeon can always use chloroform.—*London Med. Record*, April 15, 1883.

SUBPHRENIC PNEUMOTHORAX, OR FALSE PNEUMOTHORAX.—LEYDEN records (*Zeits. f. klin. Med.*, t. i. p. 320) three cases of false pneumothorax. In the first case the super-hepatic collection was opened by Langenbeck, but the patient died. The disease was recognized in the other two cases, but there was no operation, and death occurred. The principal elements of diagnosis are: 1. The affection is preceded by symptoms of peritonitis (by perforation), or by the appearance of pus in the stools. 2. Formation of an exudation of an inflammatory nature, without cough or expectoration. 3. Appearance of the classical signs of pneumothorax, while examination of the chest shows that the lungs are sound. 4. The limits of the dulness vary very rapidly with changes in the attitude of the body; always at the base of the thorax. 5. The signs

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of increase of intra-pleural pressure (bulging of the thorax as a whole, and of the intercostal spaces, and displacement of the heart) are absent, or but slightly marked, and at the same time the liver is pressed down in the abdomen. 6. Later, perforation into the bronchia confirms the diagnosis. 7. Finally, manometric measurement of the thorax, indicates an augmentation of pressure on inspiration and diminution on expiration, which is contrary to what is seen in true pneumothorax.

MENTHOL IN FACIAL NEURALGIA.—DR. C. D. CAMMANN recommends a mixture of menthol, ʒj, and alcohol, ℥ss, as an efficient remedy in many cases of facial neuralgia. This mixture is to be painted over the part several times daily with a camel's-hair brush. It has also been of service in pleurodynia and lumbago.—*Medical Record*, April 28, 1883.

CYANURET OF MERCURY IN PAPILLAR ATROPHY.—M. GALEZOWSKI has treated several cases of papillar atrophy of syphilitic nature, by injecting subcutaneously in the temporal region a gramme of distilled water containing one-thirteenth of a grain of cyanuret of mercury. The injections are repeated daily; but it is dangerous to go above one-sixth of a grain, as a troublesome diarrhæa may supervene. The double cyanurets of gold and potash, of silver and potash, sometimes act very favorably in papillar atrophy of ataxis.—*Le Progrès Méd.*, April 14, 1883.

SECONDARY UTERINE HEMORRHAGE.—DR. JOHN PHILLIPS reports a case of secondary uterine hemorrhage, occurring fourteen days post partum. At the time of delivery the placenta was removed entirely with the membranes, and the uterus contracted firmly. Patient had had two malarial chills just before confinement, and one on the day of labor, which were broken up by sulphate of quinine; believing that a malarial condition was the cause of the recurrence, full doses of quinine, with fl. ext. ergot to control the hemorrhage, were administered, with the desired effect.—*Clinical Brief and Sanitary News*, April 8, 1883.

[Dr. Paul F. Mundé has reported a similar, but more serious case, in a paper read before the N. Y. Academy of Medicine, January 18, 1883. See MEDICAL NEWS, January 27, 1883.]

ANTISEPTICS IN MIDWIFERY.—DR. JOHN WILLIAMS read an interesting communication before the Harveian Society on "Antiseptics in Midwifery in Lying-in Hospitals and Private Practice." The means, as he stated, taken at the Hospital for Women and Children, for avoiding septic infection, were perfect cleanliness in the patients themselves, strict attention to the state of the wards, which were cleaned daily, and were periodically cleared of patients and disinfected with sulphur; during parturition an antiseptic inunction of the head of the child and of the vagina during each pain, and after delivery vaginal douches with warm water.—*British Medical Journal*, April 21, 1883.

MELANURIA.—DR. ZELLER found this hitherto seldom observed occurrence in a man of 43 years, affected with melanotic sarcoma of the skin, who died six weeks after his entrance into the clinic, apparently of cerebral complication. The very dark-brown clear urine gave a small increase of sulphuric ether above normal; no increase of phenol or indoxyl, and a large amount of hydrobilirubin. Between this latter and the dark coloring matter was a stratum in which was found much urobilin and little melanin; in the darker stratum, in which there was little or no urobilin and much melanin, with bromine water he obtained a rich, yellow, amorphous precipitate, which became dark-black on standing. This bromine-water reaction is much more easily shown than the reaction with nitrate or chromate of potash hitherto employed. Brommelanin, when dried, is a glistening black mass, which, on triturating, leaves a brown powder. A solution of urobilin gives with bromine water a yellow precipitate, which never becomes black on standing. Fever urine with much urobilin, like normal urine, never gives a black precipitate with bromine water. Zeller believes that the coloring matter of the urine must arise from two sources, either from the hydrobilirubin contained in the bile, or the blood coloring matter. He thinks, from his experiments, that melanin belongs to the first group, but further confirmatory experiments should be made.—*Berliner klin. Wochensch.*, April 16, 1883.

ON THE OPERATIVE TREATMENT OF OZÆNA.—In 1881 (*Centralbl. für Chirurgie*, 1882, No. 5) VOLKMANN operated on two cases of simple fetid ozæna, in young girls, by removal of the lower, and the greater part of the middle, turbinated bones. Disinfecting and astringent solutions, which had previously been used for months and years without effect, now caused the penetrating smell to disappear. In both patients the nose was naturally very narrow, the lower meatus being only permeable to very narrow instruments. The nose was at the same time asymmetrical, the vomer being bent and the turbinals nearly occluding the nostrils. In one case there was much velvety swelling and general injection of the nasal mucous membrane with abundant secretion; in the second there was cicatricial contraction with the formation of hard crusts. The method of operating is as follows: A strong concave gouge, of as large a size as possible, is introduced into the nostril, and, with due regard to the direction of the middle meatus, is pushed forcibly onwards by two or three thrusts of the hand, the concavity of the gouge being directed first inwards and then downwards. Any loose pieces of turbinated bone may afterwards be removed with forceps, and plugging be resorted to if there be much hemorrhage.—*London Med. Record*, April 15, 1883.

REMOVAL OF PIN FROM THE LARYNX, BY INTERNAL OPERATION, AFTER IMPACTION FOR THIRTEEN MONTHS.—DR. FELIX SÉMON read, before the Clinical Society of London, the notes of the following very interesting case: Boy, æt. 13, on November 25, 1881, while holding a pin in his teeth, lost control of it, and in attempting to remove it from his mouth, it was pushed further down and became fixed in the left side of his throat. No immediate serious symptoms followed, but during the next twelve months he had several paroxysms of pain in the left side of his throat, difficulty in swallowing solids, and spasmodic cough. These paroxysms became more frequent, and the patient entered the St. Thomas Hospital Oct. 30, 1882.

Dr. Sémon made a laryngoscopic examination, and found that the pin was not in the œsophagus, but in the larynx, and that its point projected into the gullet. The point projected about one-eighth inch out of the arytenoid end of the left ary-epiglottic ligament, in close proximity to the base of the left arytenoid cartilage. The parts in its immediate neighborhood—left border of the epiglottis, left ary-epiglottic fold, and left arytenoid cartilage—were considerably tumefied, and the left arytenoid cartilage remained immobile during phonation and respiration. Voice normal; no dyspnœa.

After removal of the hypertrophied tonsils, and a short preliminary practice with the laryngeal probe, Dr. Sémon, on Dec. 26, 1882, succeeded in seizing the pin, under the guidance of the laryngeal mirror, with a

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pair of lateral serrated forceps and extracting it. The length of the pin was one inch and a quarter. Four days afterward, it was ascertained by laryngoscopic examination that there was immobility of the left arytenoid cartilage, it, with the left vocal cord, remaining immobile during inspiration and phonation. Though the glottis only opened to half its normal breadth, there was no dyspnœa. During phonation the right vocal cord completely joined the immovable left, and the voice was normal. Dr. Sémon remarked that cases of successful extraction through the mouth of foreign bodies after so long an impaction, and after the production of such considerable lasting changes in the larynx as were observed in this case, had been but rarely reported.—*Med. Times and Gaz.*, April 21, 1883.

RESULTS OF HERNIOTOMY UNDER ANTISEPTICS.—HERR BENNO SCHMIDT, in a paper read before the Twelfth Congress of the German Surgical Association, shows that the mortality in herniotomy has markedly decreased since the operation has been conducted antiseptically. Of three hundred and two operations for incarcerated hernia between 1875 and 1881, the mortality was only 36.6 per cent., a reduction of 9.2 per cent, the mortality before the introduction of Listerism being 45 8 per cent. It was probable, however, that the mortality would not be further reduced, since the operations were almost all conducted antiseptically. Dr. Gussenbauer thought that it was not so much the manner in which the operation was conducted, as the gravity of the case, which determined the mortality.—*Berliner klinische Wochensch.*, April 16, 1883.

TREATMENT OF PLACENTA PRÆVIA.—MR. ASHTON proposes to substitute the use of the long forceps for turning when operative interference is necessary, and when the head presents, and when the placenta prævia is partial—where it completely covers the os at the beginning of labor, but where, after some progress, it only partially covers it—or when there is exhaustion from previous ill-health or from loss of blood. Version is indicated when the cervical attachment of the placenta is too extensive to allow application of the forceps; when there is malpresentation of the child; and where there is contraction of the pelvis or any condition usually indicating the operation. Craniotomy may be indicated when exhaustion is great, or in the usual indications for it.—*London Medical Record*, April 15, 1883.

IODIDE OF POTASSIUM IN ENTERIC FEVER.—DR. JÉLENSKI reports a series of twenty cases in which iodide of potassium was used as the chief remedy, and with very satisfactory results. From his observations it may be said that with the use of iodide of potassium there is a regular duration of fourteen to sixteen days. This, says Jélinski, cannot be claimed for any other remedy. The slow, though sure, lowering of the temperature is not temporary as with other remedies. There is a cessation, under the use of iodide of potassium, of the abdominal pain and diarrhœa. The period of convalescence seems to be shortened by the use of this remedy, and the disagreeable after-effects noticed with other antipyretics, do not occur. From these effects Jélinski is inclined to regard it as a specific in typhoid.—*Berliner. klin. Wochensch.*, Mar. 19, 1883.

ON THE LOCAL TREATMENT OF PULMONARY CAVITIES.—DR. SOKOLOWSKI (*Deutsche Med. Wochensch.*, 1882, and *Centralbl. für die Med. Wiss.*, Dec. 23, 1882), in a patient with a cavity below the right clavicle, injected a one per cent. solution of carbolic acid in the second intercostal space, about two inches from the sternum. The injection was immediately followed by severe dyspnœa and blueness of the face, which lasted for about two minutes, and was for a short time followed by a dry cough; the temperature rose, and did not fall to its normal degree until the next day. Subsequently, three similar injections were made without any other signs of reaction beyond elevation of temperature. Two injections of a five per cent. solution of tincture of iodine were afterwards employed, with scarcely perceptible reaction, and unattended with dyspnœa. Meanwhile the general condition of the patient became worse. Dr. Sokolowski has treated several other cases of phthisis by these local injections, with no good results.—*London Med. Record*, April 15, 1883.

INHALATION OF IODOFORM IN TUBERCULOSIS.—DAVEZAC, of Bordeaux, has used iodoform by inhalation, in twenty-six cases of tuberculosis. He uses a flask with a large opening, capable of containing about f℥viij. In the mouth of the flask is a cork stopper pierced with two holes for a glass tube tapering at its lower end, and a second tube bent at a right or obtuse angle, terminating at the base of the neck of the flask, and having attached to its outer extremity a piece of caoutchouc tubing about four inches long, to the other end of which a glass tube is firmly attached. Two small corks close the upper extremity of the tubes when the inhaler is not in use.

The medicament occupies the lower third of the flask. The formula used by Davezac is Pulv. iodoform, grs. xx; Essence of turpentine, f℥jss; Essence of bergamot, and Thymic acid, āā grs. xlv; Oil of almonds, f℥v or vj. These inhalations appear to give satisfactory results in diminishing the cough, and modifying the expectoration of cases of phthisis.—*Le Progrès Méd.*, April 21, 1883.

INJECTIONS OF CORROSIVE SUBLIMATE IN GONORRHŒA.—DR. LEISTIKOFF (*Deutsche Med. Zeitung*, Sept. 7, 1882) confirms the statements of Neisser as to the presence of a special bacterium in gonorrhœal discharges. In the first stage, when the discharge is thick and abundant, few of the bacteria can be seen. They are found in great numbers in the thin secretion of the later stages, in some cases lasting a year. Leistikoff employs an injection of corrosive sublimate, which Koch has found most fatal to bacteria; a solution never stronger than 1 part to 20,000; in private practice, a still weaker solution of 1 part to 30,000. The injections are used three times a day, and continued three or four days after discharge has ceased. The bacteria disappear, or are greatly diminished in number, after one day's use of the injections, but return if the latter be discontinued too soon. Treatment by injections should not be begun until the acute inflammation has subsided.—*London Med. Record*, April 15, 1883.

NITRITE OF AMYL AND NITRO-GLYCERINE IN URÆMIC ASTHMA.—MR. SHEEN reports a case in which nitrite of amyl was inhaled with most satisfactory result in the asthma of chronic Bright's disease. When seen, the patient was sitting in bed, gasping for breath; pulse feeble; tongue pale and sodden; moist râles over the whole chest; urine containing one-fourth albumen; could only speak a few words before he had to stop for breath. He inhaled ♏ij of nitrite of amyl, and within a few minutes his breath was easier, and he was able to recline in his bed. He was then put on nitro-glycerine, ♏$_{\frac{1}{100}}$ t. i. d. He continued in the improved condition until twelve days afterwards, when he had another attack, and died in thirty-six hours, the urine being loaded with albumen.—*Brit. Med. Journ.*, April 28, 1883.

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SATURDAY, MAY 12, 1883.

SEASHORE SANITATION.

THE pursuit of recreation, rest, and health at some pleasant resort, has of late years become so generally indulged in during the summer season by the denizens of cities and large towns; and the exodus of the people from populous places during the heated term is assuming such large proportions, as to cause an annually increasing demand for temporary accommodations in the country, among the mountains, and at the seaside. To "get out of town," even though for the briefest period, seems to be an object inseparably connected with the plan of summer-life. The summer excursion of greater or less proportions is now deemed indispensable by all classes of people. In localities not distant from the coast, the seashore seems to be the place of popular resort, partly from the novelty, enjoyment, and healthfulness afforded, and partly from its easy accessibility and economy.

Under the impulse of the annually increasing tide of pleasure-seekers and valetudinarians, the old-established resorts are extending their bounds, and new ones are springing up as if by magic. A very serious question suggests itself just here, in regard to the sanitary status of these places, which is especially pertinent at this time, as reports have reached us that arouse a suspicion that all is not right in this important particular in many of the neighboring seashore resorts. Are these places, as they should be, under strict sanitary regulation and surveillance, as is implied in the very name of "health resort"? We regret to say that they are not; and this neglect is annually becoming more and more apparent, through the repeated reports of cases of preventable disease caused during a sojourn in these localities.

We are glad to learn that the Board of Health of New Jersey has directed a careful sanitary inspection to be made of the numerous summer resorts along the coast of that State. This action has not been undertaken a whit too soon to prevent an outbreak of zymotic disease in the season when the crowds frequent the seashore. It may be effective in other ways, but its chief object, at the present time, is to officially collect the facts, establish the evidence of neglect, and thereby procure the passage and enforcement of stringent laws for the protection of the public health. The travelling public have the right to appeal to the central authorities for protection when not elsewhere afforded. Of themselves, they are helpless. To trust to the local authorities is, as a rule, useless and a false dependence, as past and present experiences have proved. The cupidity of land associations, and speculators in lots and houses, and of proprietors of hotels and boarding-houses must be opposed by the enforced observance of the fundamental principles of sanitary law. If the State Board of Health is not vested with the required authority, it is competent for it to conduct searching inspections, the results of which will form the basis of the required legislative action.

The status of the population and government of summer resorts is a peculiar one. In most cases, the very existence of the place depends on the presence of a transient population, derived from all parts of the country, whose pursuit is recreation, rest, and health; and it is from this patronage that the permanent population, for the most part, derives its livelihood. But it is the meagre number of permanent inhabitants who appoint the government, and regulate the internal affairs. From the very nature of the case, it is not possible for the great mass of temporary sojourners, many of whom have property interests involved, to participate in the regulation of local government. This, therefore, is a valid reason for the interference of the legislature for the protection of the health of citizens and guests from all parts of the commonwealth who frequent these localities for their natural advantages, but who are powerless to guard themselves against the evils of maladministration of sanitary government.

No better service could be performed by the State Board of Health than that of periodical inspection of the drainage and sewerage arrangements, the methods of the removal of refuse, and the character of the water-supply, and the publication of the results so obtained for the information and guidance of the public, and for the cultivation of enlightened public opinion on this vital subject. Public opinion, which eventually moulds itself into law, prepares the way

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for the intelligent and willing observance of the law. Self-interest is always on the alert to catch the indications of the dominant views of the community, and wisely acquiesces in their demands. It is therefore of the highest importance to instruct the public in the fundamental principles of sanitary law, to point out the evils which result from its violation, and to show how they may be guarded against. In this work the medical and secular press have a noble function to perform, and it is a favorable indication that this exalted mission is not being neglected. The tracts on sanitary topics issued by the various State boards of health are a specific and pointed illustration of this method of disseminating useful information.

A means of accomplishing much good, which is specially applicable to summer resorts, is through the enterprise of the so-called Sanitary Protective Associations, such as that recently organized in Newport and other places. The advantages of co-operation accrue not only directly to individuals, who by this plan are enabled to obtain the best advice upon the sanitary arrangements of their houses and premises at a nominal cost, but indirectly to the general public by the influence which an organized body with distinctive aims exerts in suggesting, developing, and urging measures intended for the sanitary well-being of the entire community.

It is time that a public protest were entered against the culpable indifference and neglect exhibited in matters which so radically affect the public good, and that every other justifiable means should be resorted to, to compel the correction of gross abuses in refuse removal, sewerage, and water-supply at most of the watering places along the sea coast in this vicinity. The practice, with few exceptions, of depositing all the excreta, and kitchen and other house wastes close to the dwelling, in shallow pits or cesspools, which are constructed with the object of securing a rapid absorption by the soil of the fluid portions of their contents, must be forever prohibited. These reservoirs of filth (which, in the absence of other modes of sewage disposal, become necessary appurtenances to every lot of ground) are nuisances of the most serious character, defiling the air, polluting the soil by soakage, and contaminating the water-supply by a possible leak into the wells or cisterns which are built underground at no great distance from the storage pits. It does not require any great effort of the imagination to picture the condition of the soil into which, within narrow limits, the sewage of a large population is daily deposited.

Pure air, pure water, and a pure soil, are the indispensable requisites of a salubrious locality. In the absence of any one of these lurks danger. Which of the numerous summer resorts that press their advantages before the public can, with truthfulness, lay claim to the possession of these fundamental qualifications?

A DEATH FROM CHLORAL.

AT a hotel in Baltimore, a few days ago, a young lady died from an overdose of chloral. Melancholy was the impulse leading to the suicidal act. How far a persistent chloral habit influenced the mental state does not appear in the records of the inquest. It has been clearly established that the suicide was not driven to this fell purpose by the influences which, under ordinary circumstances, determine self-destruction. She belonged to a good family, and did not experience the hardships, the want of food and clothing, etc., which drive so many to commit suicide. There is no reason to suppose that any moral causes influenced her purpose; there is no history of disappointment, of chagrin, or of apprehension. She was addicted to the use of chloral. She had been wakeful from nervousness, and chloral afforded relief. This agent, which seemed to be a friend in time of need, proved to be a Nemesis, and demanded a penalty for the temporary relief which it afforded from time to time. The continued use of it brought on a hypochondriacal state, and, as one of the witnesses at the inquest stated, "an occasional flighty condition of the mind." The prescription in her possession enabled her to procure the drug in any quantity. When the prescription was filled she had it returned to her, or a copy made for her own custody. She was, also, in the habit of having the quantity directed in the prescription doubled or quadrupled. It happened in this way, that on a certain Sunday morning she had accumulated a no less amount than 44,000 grains of chloral. After an unusually cheerful day, filled up by attendance at church, conversation with the guests in the house, etc., she carried out her purpose deliberately on retiring for the night. At bed-time she was accompanied to her room by a lady friend, and then, as had been their custom, a chapter in the Bible was read, and prayers followed. Ten minutes after her friend had returned to her own room, adjoining, she heard some one fall heavily. The suicide had swallowed a tumblerful of the chloral solution, instead of a teaspoonful, the proper, but large, dose, and in response to an inquiry said, before becoming unconscious, "it's all right."

Several notable points are contained in the verdict of the coroner's jury. They find that the suicide "came to her death from an overdose of chloral administered by her own hands, . . . but whether with suicidal intent we are unable to say, though the evidence before us tends to show she may not have been in her right mind." They also

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"severely condemn the improper use of a physician's prescription by the druggists, who, without his authority, greatly multiplied the quantity."

The verdict implies that the act, if suicidal, was committed whilst in a deranged state. This is the humane way in which suicide is regarded by the public and by coroners' juries. Life is held to be so precious a possession that no one surrenders it voluntarily without being

"—— To dumb forgetfulness a prey."

The history of this case, as shown in the evidence given before the coroner, indicates a settled purpose; the material for self-destruction was carefully collected, and interference of others in her deadly act prevented by an assumption of cheerfulness. If she may at times have exhibited a flighty mind (chloral intoxication), there was no evidence of such a state during the course of that fatal Sunday. All her acts were logical and sequential, and the suicide was a deliberate purpose, to the performance of which, however, she was driven by a despairing sense of her thraldom, and by the profound melancholy induced by chloral.

The other important question raised by the verdict of the jury, is the right of physicians in their prescriptions. The jury condemned the druggists for not confining themselves to a literal interpretation of the prescription, thereby implying their conviction that the pharmaceutist is limited to the terms of the prescription and cannot modify it in form, or increase the quantity. They imply further, that pharmaceutists have no right "to renew" the prescription without the approval of the physician. The druggists censured have not failed to protest against the opinions of the coroner's jury. We believe that there are judicial decisions, not in harmony with this verdict—that the right in a prescription resides with the individual paying for it. But, clearly, the result in this case should be a warning to pharmaceutists in regard to furnishing a larger quantity of a poisonous substance than is directed by the prescription.

SPINA'S REPLY TO KOCH.

HAVING published the most important parts of Koch's caustic reply to Spina's criticism of his experiments upon the "Etiology of Tuberculosis," we think it but fair, even at the risk of tiring our readers, that Spina should be heard in reply. Spina expects to answer Koch in a special publication, but in *Wiener Med. Presse*, March 25th, replies to two of Koch's most emphatic objections.

Thus, it will be recollected that Koch charges Spina with adding to preparations, in which his object was to demonstrate tubercle-bacilli, saliva (which abounds in bacteria), and gives the reader the impression that he has ignorantly contaminated with saliva all his preparations. In point of fact, Spina moistened the cover-glass in two instances only, with the saliva of a healthy person, thoroughly knowing what he was about. In these instances he was seeking for the bacilli in the cheesy contents of cavities, found the material would not adhere to the cover glass, and sought to aid this adhesion by using the saliva as stated, for the reason that the sputum of phthisical patients is often mixed with saliva without in any way interfering with the bacilli, and because Koch *distinctly states that tubercle-bacilli do not occur in the saliva of healthy individuals*, and that the bacilli found in saliva differs *toto cælo* from the real tubercle-bacilli. He says, further, that the preparations in which he found the thick rod-bacteria, which Koch says owe their origin to saliva, *were not treated with saliva.*

Second, as to Spina's culture experiments. In order to prevent the transfer to the gelatine on which the tubercle-bacilli are cultivated, of decomposition-bacteria, he brushed from certain poppy-seed-sized omental tubercles, the adhering fluid—using for the purpose a brush which had lain for a long time in a solution of corrosive sublimate, then washed with hot water, and dried in a disinfected glass tube closed with cotton. The tubercles were placed upon a heated object-glass with a pair of heated forceps, and brushed off with the sterilized brush. This entire manipulation Spina did not consider necessary to describe in his original paper, as it is known to every mycologist how a disinfected brush should be dried, that all instruments should be sterilized by heating, etc.

Koch, in his reply, charged Spina with having applied corrosive sublimate directly to the tubercle, whereas Spina expressly said that he used a *dry brush disinfected by corrosive sublimate.*

Again, Koch insists that Spina should have pursued his (Koch's) method, which was to wash the surface of the tuberculous organ with corrosive sublimate, to remove with heated knives the superficial layers thus washed, and to take the inoculating material out of the interior of the lung. But the tubercle treated was the size of a poppy-seed, and yet it was to be washed with corrosive sublimate solution, and have its superficial layers scaled off! Such an application of corrosive sublimate, to a tubercle of such size, says Spina, would penetrate to its centre and destroy all bacteria, including the tubercle-bacilli as well.

It will be seen, therefore, that Spina is taken to task by Koch for a certain procedure, and again taken to task for omitting the same procedure, under circumstances, when to have carried it out would have retarded the experiment.

It is on account of such statements as these, culminating in the contemptuous words, "in such

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manner are pure culture-experiments made in Stricker's laboratory," that Spina charges Koch with carelessness in his criticisms, and it would seem, with a certain degree of propriety.

ACETONÆMIA.

IN the death by coma, which is one of the modes by which diabetes terminates, there are many cases in which no lesion is discoverable. An acute coma is produced in such cases by the sudden development of acetone in the blood—hence the term *acetonæmia*. It can be detected free in the urine in cases of diabetes, but it appears to exist in the blood in the form of aceto-acetic acid, which readily yields acetone. The circumstances under which this conversion of aceto-acetic acid into acetone takes place in cases of diabetes is not well understood. Aceto-acetic acid is a product of the alcoholic fermentation of the glucose, and, hence, the acid condition of the blood in diabetes is explained.

According to Dr. Ralfe, there is a striking similarity in the symptomatic expression and in the morbid changes between acetonæmia, acute yellow atrophy, and acute phosphorous poisoning. If a sudden accumulation of acetone takes place in the blood, either because of its excessive production or because its excretion is prevented, delirium, convulsive movements ending in profound coma come on, and the changes found post-mortem consist in acute fatty degeneration of the liver and other organs.

Opposed to this view of the constant presence of post-mortem changes, which ally acetonæmia to acute yellow atrophy and phosphorous poisoning, are the statistics of the deaths from diabetes, collected from the records of the London Hospital for eight years. Dr. Stephen Mackenzie, who has submitted these figures, gives the number of deaths from coma as nineteen, out of thirty-seven deaths in all, of which there were seven that presented no post-mortem evidences of disease. Erroneous or imperfect observation must be suspected here, since Dr. Mackenzie admits that in one of eleven cases there was fatty degeneration of the liver found, and in the others of this group there was atrophy of the liver cells. These eleven cases constituted one-third of the whole number of fatal cases examined after death.

Acute diabetic coma is not always due to acetonæmia. To the sudden production of fat embolisms has been ascribed the comatose state in some instances. So far as Dr. Mackenzie's observations are concerned, however, fat embolisms, as a cause of coma, must be regarded as doubtful. Another lesion which may have some relation to the sudden production of coma, is a degenerative atrophy of the heart, noted by Mackenzie in some cases. This observation has also been made by Schmitz, who finds that an atrophic change takes place in the muscles of the body generally, including the heart, and to this he refers some of the cases of sudden death ascribed to acetonæmia.

It may be desirable to state that the most easily applied test for acetone is ferric chloride. To the urine suspected to contain acetone, solution of the chloride of iron is added, drop by drop, when a deep reddish-brown color is produced, if the acetone be present. A more complicated reaction is the formation of iodoform (iodide of formyl), when acetone is present, by the action of iodine. This test is based on the usual process for obtaining iodoform, by the reaction between iodine and alcohol producing iodoform.

WE observe with regret that our Paris contemporary exhibits an envious disposition towards American medical talent. All the world now knows—thanks to an industrious post—of a monograph on "The Therapeutic Action of Potassium Chlorate," according to which, *Le Progrès Médicale* says "we are in the presence of a universal panacea." After enumerating the maladies reported to be cured in the pamphlet aforesaid, by the chlorate, the unbelieving journalist remarks that "the therapeutic mission assigned to this medicine is too beautiful to be real, and must exist only in the imagination of the American physician making the discovery."

WE have received a price-list of "Tablet Triturates," manufactured by a well-known firm of homœopathic pharmacists, which might well make the bones of poor Hahnemann shake in his coffin. Think of the $\frac{1}{200}$ gr. of arsenic, the $\frac{1}{60}$ gr. of aconitine, atropine, or digitaline, a grain of calomel, the $\frac{1}{4}$ gr. of morphine, and $\frac{1}{10}$ gr. of biniodide of mercury! Not that we object to such doses, with the exception of the last which is dangerous in amount, but it is the reconciliation of such doses with the hypothesis of infinitesimals that puzzles us. Dr. Piffard and Dr. Fuller are quoted in support of this method of administration, and their articles in the *Medical Record* are the only ones, apparently, that have been re-published, and will be furnished "gratis on application."

THE fourth annual meeting of the American Surgical Association, representing nearly one hundred of the most prominent surgeons of the country, will take place at Cincinnati on Thursday, May 31st, and continue for three days. The meeting held in Philadelphia last June was a decided success; and, judging from the number and character of the papers to be read at Cincinnati, the meeting there will be still more interesting. The meeting will be held under the presidency of Dr. Samuel D. Gross.

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SOCIETY PROCEEDINGS.

SOUTH CAROLINA MEDICAL ASSOCIATION.

Thirty-third Annual Session, held at Yorkville, April 25 and 26, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE thirty-third Annual Meeting of the South Carolina Medical Association was held at the Court House, Yorkville, April 25 and 26, the *President*, F. F. GARY, M.D., in the chair. The attendance was fair, and seventeen new members were added to the roll.

THE PRESIDENT choose for the subject of his address,

THE STATE BOARD OF HEALTH, AND THE DUTY OF THE STATE TO AID AND SUPPORT IT.

Heretofore, the labors of the medical profession have been chiefly directed to acquiring a knowledge of the causes of disease, the better to cure it; but it has been reserved for the present century to organize and create a distinct department of medicine for the prevention and extinction of disease, known as Hygiene, or Sanitary Science. The preservation of health is not only a higher object, but a totally different one from the cure of disease; and this Association can boast of no more important act than the one securing the organization of the State Board of Health. The Act of the Legislature constitutes this Association the Board of Health of the State, and its sole adviser in all questions involving the care and protection of the public health.

In the discussions in the Legislature which preceded the organization of the Board, it was objected by some that there was no necessity for it, and even as late as the last session, an effort for the repeal of the Act was made in the Senate, but, I am glad to say, was overwhelmingly defeated. No intelligent citizen, with the sad experience before him in the history of our State of repeated epidemics, involving not only great loss of human life, but also great injury to commerce, will hesitate as to his duty. Every interest and every consideration prompt the citizen to coöperate with us in well-considered measures for public hygiene, and demand of an intelligent Legislature that it shall aid and support it; because the benefits accruing from the preservation of public health cannot be estimated.

The Act creating the Board of Health does not go far enough to accomplish all the aims and purposes of the Executive Committee. At the last session of the Legislature a bill to organize Boards of Health, and for the better preservation of the public health, was introduced, and favorably reported on by the Medical Committee of the House, and is now pending. Among the important sections of the bill is one for the collection of vital statistics. Those who are careless and indifferent to the wants of the people may raise objections and question the necessity of such a law, but it should not be forgotten that by the very Act creating the State Board of Health, it becomes "the duty of its Executive Committee to recommend such provisions of law as shall be deemed necessary for the thorough organization of a system of registration of vital statistics throughout the State."

It may be asked what interest the State has in maintaining a Board of Health? To which we have an answer in the fact that over one-half of the diseases which impose such a heavy tax upon us may be prevented by an observance of sanitary measures. The Board of Health should be required to give the necessary information, and the State must enact and enforce the necessary laws for the prevention of disease. The result of such legislation elsewhere has been to improve the human condition. The average duration of life has been increased, epidemics have been moderated, contagion has been circumscribed, and morbific agents subdued. In England, by proper sanitary regulations, the death-rate has been reduced over twelve per cent. in urban, and over eight per cent. in rural districts.

The State, in supporting the State Board of Health, will not be making a new departure, but will simply realize the aphorism of a Beaconsfield, "The health of the people is the first duty of the statesman."

THE NATIONAL BOARD OF HEALTH.

The following resolutions, submitted by Dr. T. G. SIMONS, *Chairman of Committee on Quarantine*, were unanimously adopted:

"*Resolved*, That the South Carolina Medical Association, in its corporate capacity as the State Board of Health, does hereby express its continued confidence in the National Board of Health, for its wise and beneficent efforts to secure sanitary reform and to maintain public hygiene, and that it fully appreciates the benefits conferred upon the whole country by the 'Emmigrant Inspection Service;' also, that by its general scientific investigations and reports upon the causes of disease, the National Board of Health has proved, to the satisfaction of sanitarians, its eminent ability to perform the great work entrusted to it. More especially does this Association commend the system of national quarantine refuge stations and inspections as conducted by this Board; and endorses the Board as better qualified to conduct this important work than any other department of government service.

"*Resolved*, That this Association does most earnestly urge upon and request his Excellency, the President, to empower the National Board of Health to open and conduct the National Quarantine Refuge Station at Sapelo Sound, and to furnish the Board with such part of the fund apppropriated by Congress 'to prevent the spread of epidemic diseases' as may be requisite for this purpose during the coming summer and autumn.

"*Resolved*, That in the opinion of this Association, it is essential to the safety of our seaports and to the perfecting of our quarantine system, to have this station as a resort for infected vessels bound to the South Atlantic ports. Sapelo Station, being remote from populous trade centres, offers a safe refuge where the sick and distressed seaman can be humanely treated without danger of spreading disease and desolation to crowded communities.

"*Resolved*, That a copy of these resolutions be sent to his Excellency, the President of the United States, and also to the National Board of Health."

THE DISCOVERY OF ANÆSTHESIA.

DRS. BRATTON, TAYLOR, and TABER, the committee appointed to "investigate the claims of the original discoverers of the anæsthetic properties of sulphuric ether, and the successful application of the same in surgical operations," presented a report in which, after some prefatory remarks, they say that the claimant who appears first in this case is P. A. Wilhite, who makes a statement, based upon affidavit, and this testimony of P. A. Wilhite is fully corroborated by the affidavit of Sam. B. Wier, to the effect, that he was present at the house of John Wier, in what was called an ether frolic, and he there saw a negro boy put to sleep with sulphuric ether, administered by P. A. Wilhite, now of Anderson, S. C.

This affidavit is corroborated by the affidavit of Mrs. C. Wier, of Clark County, Ga., Dec. 12, 1882, recounting the same facts.

The history of medical literature nowhere gives us the information of such an effect having been produced

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previous to this date by sulphuric ether in the hands of any person, either in this or any other country.

The claimant who next appears is Dr. Crawford W. Long, of Athens, Ga. His claim is supported by the testimony of Dr. Whilhite, already given, and the affidavit of Mr. Jas. M. Venable, the gentleman upon whom Dr. Long operated, for the first time, under sulphuric ether; also by the publication of Dr. Charles T. Jackson, in the *Boston Medical and Surgical Journal*, April 11, 1861.

A statement by Dr. Long, published in the *Southern Medical and Surgical Journal*, Dec. 1849, is cited, in which he says that the first patient to whom he administered ether in a surgical operation was Mr. James M. Venable, on the 30th March, 1842. That he again operated on the same patient under ether June 6, 1842. This is corroborated by an affidavit of Mr. Venable, the patient, dated July 23, 1849. Dr. Wilhite states that the etherization of Venable was as complete as it is ever made nowadays, and that Venable always declared that he felt no pain during the operation.[1] Dr. Long also operated under ether July 3, 1842; Sept. 9, 1843; and Jan. 8, 1845.

Then follows a statement of Dr. Charles T. Jackson, published in the *Boston Medical and Surgical Journal*, April 11, 1861, recognizing Long's claim to be the first to produce anæsthesia (by etherization) for surgical operations; also a statement of Dr. Marion Sims, corroborating the same opinion, and contributing some interesting details in the history of the discovery and development of anæsthesia by ether. Amongst other things, he shows that, on the 16th and 17th of October, 1846, Morton gave ether in the Massachusetts General Hospital to patients who were operated on by Drs. Warren, Hayward, and Bigelow, and from that time it came rapidly into use by the whole profession.

From a view of all the facts the Committee draw the following conclusions: That for more than fifty years the inhalation of sulphuric ether as an excitant has been common in some parts of Georgia, though not practised in the colleges. 2. That Wilhite was the first man to produce profound anæsthesia, which was done accidentally with sulphuric ether in 1841. 3. That Long was the first man intentionally to produce anæsthesia for surgical operations, and that this was done with sulphuric ether in 1842. 4. That Long did not by accident hit upon it, but that he reasoned it out, in a philosophic and logical manner. 5. That Wells, without any knowledge of Long's labors, demonstrated, in the same philosophic way, anæsthesia by the use of nitrous oxide gas in 1844. 6. That Morton, desiring to use the gas in dentistry, asked Wells to show him how to make it in 1846. 7. That Wells referred Morton to Jackson, as the latter was a scientific man and an able chemist. 8. That Jackson told Morton to use sulphuric ether instead of gas, as it possessed the same properties, and was as safe, and easy to get. 9. That Morton, acting upon Jackson's suggestion, used the ether successfully in the subtraction of teeth in 1846. 10. That Warren, Haywood, and Bigelow performed important surgical operations in the Massachusetts General Hospital, October, 1846, on patients etherized by Morton, and that this introduced the practice throughout the world.

Wilhite, the last and only survivor of those laying claim to the honor of this invaluable discovery, still lives and moves among his professional colleagues, wearing with honor, grace, and dignity the insignia of his profession, which he so highly appreciates and ardently loves; calmly, patiently, silently awaiting the dispensation of that honor, equity, and justice due from a grateful people.

[1] Morton's anæsthesia with sulphuric ether was on Sept. 30, 1846.

DR. A. A. MOORE read a paper on

CHLOROFORM AS A CAUSE OF POST-PARTUM HEMORRHAGE.

While chloroform was generally administered in this country to annul the suffering of the parturient woman, he believed that its agency in producing post-partum hemorrhage was not so generally recognized as it should be. Assuming its causative relation to such hemorrhage, were we justified, he asked, in resorting to it merely to abolish the pangs of ordinary labor? In his own practice he was in the habit of giving it, if requested, but never insisted on it. In its administration he had been long governed by Playfair's rule, to give it only in the propulsive stage and intermittently, never giving it to complete anæsthesia. But even thus he had found its use attended with so much uterine inertia, as to be obliged to withhold it for a time to allow a return of the force and frequency of the pains. It was this very inertia after delivery which predisposed to post-partum hemorrhage, and during the last few years he had met with this unpleasant complication several times, when he could attribute it to no other cause than the inhalation of chloroform. He gave the following analysis of thirty-four cases of labor attended during the years 1881 and 1882, as going to substantiate his views. In twenty cases chloroform was administered; in four of these there was free hemorrhage, in thirteen there was less, but more than natural, and in three there was no report. In fourteen cases there was no chloroform administered. Of these, only two had hemorrhage; with one it was habitual, the other was a woman who had borne children rapidly, was quite fleshy, having the abdominal walls pendulous and flabby, giving no support to an inert uterus.

He then cited various authorities, some in favor of the use of chloroform in labor, but all with a word of caution against its tendency to cause uterine inertia and hemorrhage.

A paper by JULIAN J. CHISOLM, M.D., Professor of Eye and Ear Diseases in the University of Maryland, was read, entitled

SHALL WE PUT SPECTACLES ON CHILDREN?

This question, from want of proper information, is often answered in the negative. According to tradition, the need of spectacles is an indication of old age, but a better knowledge is diffusing itself, and it is coming to be generally known that age is not the only criterion of the necessity for optical aid.

Every-day experience teaches that the human eye varies much from the type of a perfect one, viz., one with which good vision can be enjoyed comfortably, for any distance far or near, to which is given the name emmetropic. In such an eye the crystalline lens in its passive state must focus accurately on the retina, and the muscles of accommodation can make it more convex, and adapt it for condensing the light from approaching bodies, so as to keep the focus always on the retina.

What is called accommodation or ability to change the focus is a muscular act, which, by taking off pressure from the front of the lens, permits its inherent elasticity to give its surfaces greater convexity, and, therefore, greater focussing power. When these muscles are temporarily enfeebled by diseased conditions of the system at large, they do not lift off sufficiently the flattening pressure of the suspensory ligament, or they are too weak to keep up their continued action. Hence it is that sick persons, with weakened muscles, cannot read as long nor with the same comfort as when well and strong. When from feeble muscles, the convexity of the lens cannot be sustained, a magnifying spectacle for temporary use will enable persons to read, while tonics are being administered to restore perma-

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nent strength. We often find children recently recovered from an attack of measles, scarlet fever, diphtheria, whooping-cough, or any one of the depressing diseases of childhood, unable to study as they did before the attack. For a little while the eyes seem as strong as ever, but a very few minutes' use will cause letters to run together, and the print becomes blurred. This is not a failure of the retina or optic nerve, but of the muscles acting on the lens. A weak magnifying spectacle, by helping the muscles to do their work, will enable weak children to continue their studies, until their strength is restored.

If children, either by inheritance or acquisition, have myopic or hypermetropic eyes, what can be the propriety of allowing them to go through life as if in a constant fog, when a properly selected glass clears up the mist, and enables them to see as others do?

DR. T. P. BAILEY, Georgetown, S. C., read a paper on

HEMORRHAGIC MALARIAL FEVER.

This disease has been familiar to the profession of Georgetown only in the past fifteen years. It seldom occurs here in the hot months, but generally late in the autumn, the most malignant cases I have observed occurred in November, December, and January.

Symptoms: A patient who has had attacks of chills and fever, but has not been regularly treated, his condition one of marked anæmia, is suddenly taken with a chill, pulse small and frequent, with or without nausea and vomiting, voids urine like black grumous blood, which, when agitated, shows a yellowish tinge on the sides of the vessel. There is great nervous excitement and tendency to collapse. Temperature seldom more than 103°. In about twelve to fourteen hours the whole cutaneous surface turns of a bright yellow hue; conjunctiva also yellowish. As the fever subsides, the skin becomes pale, and the urine resumes its usual tint, while the failure of the vital powers is more marked. This intermittent stage may last twenty-four hours, when another chill comes on with an aggravation of all the symptoms, and if these are not controlled the patient soon dies, like one in an exsanguineous condition.

The most prevalent and fatal cases are of the remittent form. Commencing with a slight chill, they are characterized by an anxious countenance, febrile remissions and exacerbations, gastric irritation, urine more or less hemorrhagic, with the exacerbations and remissions likewise; the yellowness of skin increased or diminished with the same symptoms. The more free the secretion of the kidneys, the more amenable to treatment is the disease. Under treatment, many of the symptoms may disappear; there may be almost complete defervescence; the skin may lose its icterode hue, and the urine become healthy looking, yet the patient dies rapidly of exhaustion, or suddenly in a convulsion. We have much to learn of the true nature of this disease. The system, after having been subjected to several attacks of malarial fever, is left in a cachectic condition, and a breaking down of the blood corpuscles takes place, as manifested in the secretion of the kidneys.

The resemblance of this disease to yellow fever is certainly in some cases very striking, so much so, that it has been called "Swamp Yellow Fever," but the symptoms given above are sufficient to distinguish it.

The treatment must be thoroughly supporting, with a free use of stimulants and nourishment, and the administration of stimulant diaphoretics, quinia and iron. Quinia alone appears to be of little use, and is often disappointing.

DR. JOHN FORREST, of Charleston, read a paper on

BOROGLYCERIDE,

a new antiseptic, a compound of boracic acid and glycerine, discovered by Prof. Barff, of London. It is prepared by heating sixty-two parts of boracic acid in ninety-two parts of glycerine, to a temperature of about 300° F., until the mass ceases to lose weight. On cooling, it sets like glue, and is soluble in water. A solution in water or glycerine makes a most valuable antiseptic fluid. Cotton tampons, steeped in a strong solution, may be left in the vagina a week, without becoming offensive or causing any annoyance to the patient, except sometimes a little dryness of the tongue. It is thoroughly antiseptic and perfectly harmless, which is more than can be said of either carbolic acid or iodoform. It has been used in some of the London hospitals, in surgical dressings, with most satisfactory results. It has proved beneficial in diphtheritic sore throat, and in ulcers of the mucous membranes. In purulent ophthalmia it has been highly recommended. For preserving anatomical specimens it is far superior to alcohol, as it does not shrivel up the tissues. In every respect, it promises to be a most invaluable addition to our list of antiseptics.

After the reading of a number of more papers, the following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—DR. R. A. KINLOCH.

Vice-Presidents.—DRS. A. A. MOORE, J. FORD PRIOLEAU, and T. MUNRO.

Recording Secretary.—DR. JOHN FORREST.

Corresponding Secretary.—DR. H. D. FRASER.

Treasurer.—DR. H. W. DE SAUSSURE, JR.

The Association adjourned to meet at Florence, April 22, 1884.

MEDICAL ASSOCIATION OF GEORGIA.

Third Annual Session, held at Athens, April 18 and 19, 1883.

THE meeting was called to order by the *retiring President*, DR. WILLIAM F. HOLT, of Macon.

A letter was read from the *Secretary*, DR. A. SIBLEY CAMPBELL, of Augusta, regretting his unavoidable absence from the meeting, and Dr. James A. Gray, of Atlanta, was requested to act as Secretary *pro tem.*

DR. JOHN GERDINE, in behalf of the Committee of Arrangements, delivered the *Address of Welcome*, which was responded to by Dr. James B. Baird, of Atlanta, in behalf of the Association.

DR. WILLIAM F. HOLT, then introduced the *President-elect*, DR. K. P. MOORE, who delivered the annual address taking for his subject "Æstheticism in Medicine."

Letters from various absent members were read, expressing their regrets at not being able to be present.

Twenty-two applications for membership were read, referred to the Board of Censors, and being favorably reported upon, the applicants were duly elected.

The reports from the Standing Committees were then received, and several communications were received.

An amendment to the By-Laws was adopted, requiring the Secretary to publish the volume of *Transactions* within four months after the meeting.

On the second day, *The Nominating Committee* made the following nominations for

OFFICERS FOR THE ENSUING YEAR,

which were duly confirmed by the Association:

President.—DR. A. W. CALHOUN, of Atlanta.

Vice-Presidents.—DR. R. J. NUNN, of Savannah, and DR. M. P. DEADWILER, of Elberton.

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Secretary.—DR. JAMES A. GRAY, of Atlanta.

Treasurer.—DR. E. C. GOODRICH, of Augusta.

Additions to the Board of Censors.—DR. EUGENE FOSTER, of Augusta, and DR. J. S. TODD, of Atlanta.

Macon was selected as the place of meeting next year.

The Association adjourned to meet in Macon next year, on the third Wednesday (16th) in April.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Sixteenth Annual Session, held at Meridian, April 4, 5, and 6, 1883.

(Specially reported for THE MEDICAL NEWS.)

(*Concluded from p. 517.*)

APRIL 5TH, SECOND DAY.—MORNING SESSION.

THE form of Charter presented by the committee was adopted without amendment. The Constitution and By-Laws were considered section by section, and were amended in several important particulars.

Drs. Johnston, Kells, and Craft were appointed a committee to devise and to procure a seal for the Association.

DR. R. S. TOOMBS, of Greenville, read a report of a case of

GIN-SAW INJURY OF HAND, FOREARM, AND ELBOW-JOINT,

in which a negro boy had a hand cut to pieces, the bones of the forearm almost entirely denuded, with the skin and muscles hanging in shreds; the elbow-joint was opened, and all the arteries except the radial divided. The boy's mother would not suffer the arm to be amputated. The patient was accordingly anæsthetized, and after all fragments that seemed to be utterly destroyed had been removed, strip after strip of muscle and skin was straightened out, and the parts were coapted in the best manner possible, not less than forty sutures being required. Adhesion strips were applied where they could be used, and the whole arm was enveloped in lint saturated with carbolized oil, which was left undisturbed until suppuration set in. The boy recovered with an arm that will be of considerable service to him.

The paper was discussed by Drs. Gnice, Halbert, Green, Ward, Sale, Hancock, Hill, and Toombs.

DR. B. F. WARD, of Winona, said that owing to the rich arterial and nervous supply of the upper extremities, reparation would take place in the most unpromising cases, and that amputation would rarely be found necessary.

DR. E. P. SALE, of Aberdeen, remarked that a single case could not establish a precedent, and, by way of caution, he narrated the history of a case similar to the one described by Dr. Toombs, in which an attempt had been made to save the arm, but gangrene occurred and death was the result. He thought that where there is severe laceration of the soft tissues, and the nerves and arteries of the arm are divided, the safer course would be to amputate.

There was a difference of opinion between two of the speakers in regard to the nature of a gin-saw wound—one contending that it should be classed as an *incised*, and the other as a *lacerated*, wound.

The Association adjourned till 2.30 o'clock.

AFTERNOON SESSION.

DR. JOHN BROWNRIGG, of Columbus, exhibited a novel and effective

APPARATUS FOR SECURING COUNTER-EXTENSION IN FRACTURE OF THE FEMUR,

which seemed to possess many advantages. He exemplified its application before the Association, using, in connection with it, an apparatus very similar to Buck's, to secure extension. The following is the description of the apparatus: "A jacket closely fitting the chest is substituted for the usual perineal band. The jacket is thus constructed: Two thicknesses of unbleached domestic of good quality, wide enough to reach from the axilla to a point an inch and a half below the lower margin of the ribs, are passed around the body and brought together in front. Tapes six inches long are sewed securely to the edges, at intervals of an inch, from top to bottom, at such a distance from its edges as to make the jacket fit tight when the tapes are tied together. To make the jacket fit the form a plait is sewed on both sides diminishing in width from below upwards, and extending upwards as far as necessary. A strap with a buckle on one end, of the same material as a tourniquet-strap, is sewed by a row of stitching on both edges to the outside of the jacket, just above its lower margin, so as to admit of buckling the strap on the outside of the jacket in front. Four straps, made of strong domestic, two inches wide, are securely sewed to the upper edge of the jacket, two in front, and two behind between the neck and shoulders, long enough to tie to the head of the bedstead at points wide enough apart to allow free turning of the head, and high enough to slightly lift or support the shoulders.

"A band about four inches broad should also be applied around the pelvis and secured to the right side of the bedstead, to keep the body and the fractured limb in a line. This pelvic band should be secured to an upright piece of plank fastened to the side rail of the bedstead, extending about a foot above the side rail, with two holes near the top, one a few inches lower than the other, and the upper end of the band should be passed through the lower hole, and the lower end through the upper hole, so that when the band is secured properly, it will help to support the body, causing it to lie more lightly on the bed. This band, the counter-extending bands secured to the head of the bedstead, and the extending cord, being all somewhat elevated, the whole body lies lightly on the bed, and bedsores are prevented."

DR. J. M. TAYLOR, of Corinth, exhibited three interesting pathological specimens: a large adenoid tumor, which he had successfully removed from the left side of the face and neck of a young boy, its chief site being in the immediate vicinity of the parotid gland; a supposed villous tumor of the rectum, with a broad and well-defined pedicle; and an unbroken dysmenorrhœal membrane, that formed a perfect cast of a *uterus bicornis* which, the Doctor stated, had borne one child. The Doctor, having prepared no written report, merely gave a verbal history of these specimens.

DR. E. L. MCGEHEE, of Woodville, read a paper on

PERTUSSIS,

the subject having been assigned him by the Committee on the Selection of Special Topics, at the previous annual session.

DR. JOHN BROWNRIGG exhibited an apparatus which he had invented for the treatment of

BARTON'S FRACTURE OF THE RADIUS.

Its construction is thus explained: "The elbow should be flexed at a right angle, and the forearm placed in front of the body, with the thumb upward. A piece of strap iron, three-fourths of an inch wide, and thick enough not to spring or bend at the elbow when in use, should extend from near the shoulder along the inside of the arm to near the elbow (where it should have a round curve, so as to avoid pressure on the inside of the elbow); thence it should extend along the upper side of the forearm to the wrist, where

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it should be bent slightly upward over the thumb, to avoid pressing the hand downward; thence it should extend to the end of the fingers, and the last three inches be bent downward at a right angle, at the end of the fingers. A tar-board splint should be moulded to fit the arm from near the shoulder to near the elbow, wide enough to envelop more than half the arm. This splint should be secured to the arm-portion of the iron splint by two copper rivets, and secured to the arm by a many-tailed bandage, with the ends tied together over the splint. A tar-board splint should be made to fit the forearm, to reach from near the elbow to the wrist, and wide enough to envelop half of the forearm. This splint should be secured to the iron strap by pieces of sheet iron riveted to the splint with copper rivets, so that the tar-board splint can slide on the iron strap, towards the elbow or wrist, in such a manner that the carpal end of the splint may be made to press at any point near the end of the radius where pressure is most required at the point of fracture. This is secured in the same manner as the arm splint, but another bandage may be required at the point of fracture, and in cases in which the lower end of the ulna is dislocated and displaced, a rubber bandage may be found useful. A band about three-fourths of an inch wide, of some inelastic material, is passed around the wrist where it joins the hand, and sewed so as to fit tightly. To the edge of this band next to the hand should be sewed two metal loops (like those for securing Barwell's artificial muscles for treating varus in new-born infants), one on the dorsal, and one on the palmar side of the hand. A strong cord should be attached to each of these loops and tied over the bent end of the iron splint beyond the end of the fingers, tight enough to cause sufficient extension in the axis of the arm. Strong extension and counter-extension is required to overcome muscular contraction and displacement of the fractured bones. These are obtained by the application of this splint. Lateral pressure may be applied to the fractured bone, or the lower end of the ulna, as may be required, by bandages.

EVENING SESSION.

The Committee on Nomination of Delegates to the American Medical Association presented their report, which was adopted.

DR. W. E. TODD, of Clinton, read a report of a case of

HYSTERICAL CONVULSIONS,

consequent, in his opinion, upon anteflexion of the uterus and cervical endometritis. The woman was reduced to the verge of the grave; and after the usual treatment, comprising a great variety of remedies both constitutional and local, had failed—after change of scene, and residence at health resorts had been tried without benefit—she was entirely restored to health by the systematic application of the galvanic current.

DR. E. P. SALE deprecated the use of chloral hydrate in these cases, because it tended, without compensating remedial power, to induce the terrible habit of chloralism. His remarks on this point were striking and emphatic. He favored the use of potassium bromide.

DR. B. A. VAUGHAN alluded to the views which he had formerly enunciated in a paper, published in the *Transactions* of the Association for 1874, to the effect that ovarian irritation is usually the source of uterine disease, and the consequent functional troubles; and that the motto of the gynecologist should be, *Propter ovarium*, and not *Propter uterum*. He condemned the use of bromide of potassium in these cases, because he thought its powerful sedative and paralyzing influence on the spinal nervous centres—an influence that might be so great as to induce, for instance, complete anæsthesia of the fauces, and to impair, if not to destroy, the erotic sense—would ultimately result in harm.

DR. SALE replied that the very reasons assigned by Dr. Vaughan in condemnation of the potassium bromide, were to him arguments in its favor.

DR. MABRY read a paper on

PUERPERAL CONVULSIONS,

which was discussed by Drs. Guice and McCallum.

DR. GUICE reiterated his views, which had been fully set forth by him in a paper published in the last volume of the *Transactions* of the Association, in regard to the remarkable efficacy of *Veratrum Viride in Puerperal Convulsions*.

DR. A. G. SINCLAIR, of Memphis, Tenn. (who had been elected a member of the Association), read an interesting paper on

GLIOMA OF THE RETINA,

in which, after reviewing fully the pathology and treatment of this formidable affection, he narrated the history of a patient on whom he had operated successfully. Although several months had elapsed, there was no indication of a return of the disease.

In reply to a question, Dr. Sinclair stated that the disease would probably recur. He had, however, known a case in which there was, after operation, a period of exemption for seven years.

DR. JOHN BROWNRIGG read a brief report of a case in which he performed the operation of

EXTERNAL URETHROTOMY.

The patient was a negro man, with a stricture through which the smallest bougie could not be passed. An abscess discharging pus, through which urine trickled, was situated on top of the penis, near its junction with the pubis above the stricture. There were great induration and swelling of the penis around the abscess. On attempting to urinate, only a few drops escaped from the meatus, as well as the fistulous opening. There was constant dribbling from both places, with characteristic odor. The patient was reduced in flesh, with painful facial expression. After several efforts, Dr. B. succeeded in passing the smallest bougie, strengthened by a small wire, through or nearly through the stricture, which was an inch in length. He slipped over this, down to the stricture, a larger bougie with the end cut off. Guided by this larger bougie, he cut down on the urethra, and split it for one and a half inch, when he found an open canal on both sides of the stricture. He closed the wound by sutures and adhesive plaster, which soon gave way, and the urine flowed freely through the cut. This closed by granulation in ten days, and, on introducing a No. 12 bougie, American scale, a good urethra was found to be reëstablished.

APRIL 6. THIRD DAY.—MORNING SESSION.

DR. G. W. TRIMBLE, of Grenada, who had been elected orator at the last session, being unable to appear, had forwarded his *oration* in MS., which was now presented, and referred, unread, to the Committee on Publication.

DR. J. Y. MURRY, of Ripley, offered the usual resolutions of thanks, which were unanimously adopted.

The Association then proceeded to the election of

OFFICERS FOR THE ENSUING YEAR,

which resulted as follows:

President.—Dr. J. M. Greene, of Aberdeen.

Vice-Presidents.—Drs. S. N. Walker, of Baldwyn, and D. McCallum, of Westville.

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Recording Secretary.—Dr. W. E. Todd, of Clinton.
Assistant Secretary.—Dr. J. F. Hunter, of Jackson.
Corresponding Secretary.—Dr. M. S. Craft, of Jackson.
Treasurer.—Dr. Robert Kells, of Jackson.
Judicial Council.—Drs. W. D. Carter, J. M. Taylor, N. L. Guice, R. S. Toombs, B. F. Ward, S. V. D. Hill, J. P. Moore, W. Powell, and B. F. Kittrell.

The following gentlemen were nominated for appointment by the Governor to fill existing *vacancies in the State Board of Health:* For Sanitary Commissioner of First District, Dr. J. M. Taylor, of Corinth; Fourth District, Dr. J. P. Moore, of Yazoo City; Fifth District, Dr. Robert Kells, of Jackson, and Dr. J. W. Bennett, of Brookham; Sixth District, Dr. R. S. Toombs, of Greenville.

A telegram was received from Dr. M. S. Craft, of Jackson, which stated that, finding he would be unable to attend the meeting, he had forwarded by mail his *Report on the Surgery of Mississippi.* On motion, the report was referred to the Committee on Publication.

AFTERNOON SESSION.

DR. J. T. HANCOCK, of Shuqualak, read a paper on

TRISMUS NASCENTIUM,

in which he gave a report of a case as follows: "Infant eight days old; jaw immovable; general rigidity of muscles; disposed to nurse, but could not. It made the noise between a cry and a whine, so peculiar to the disease; had been in semi-comatose condition at intervals during last six or eight hours. I immediately ordered a warm bath, and while it was being got ready administered enema, and applied the following liniment to spine:

℞.—Tinct. gelsemii,
Tinct. lobeliæ,
Tinct. camphoræ,
Ol. Olivæ, ... āā f℥ss.
Chloroformi, ... f℥ij.—M.
Sig.—Ft. lin.

Kept it in the bath about thirty-five minutes; then wrapped it in a sheet, and gave by enema five grains of bromide of potassium, and five drops of tinct. gelsemium; caused it to be retained by application of warm napkin. Applied to umbilicus one drachm of sulph. zinc to one ounce of water, using a poultice over this of powdered slippery elm, which was kept up during treatment. Kept cloths, wet in cold water, to head; gave internally two grains of bromide of potassium and two drops of tinct. gelsemium every two hours till symptoms grew better, and then diminished the dose. Kept bowels open by giving syrup of rhubarb. Five cases recovered under above treatment. Several relations, on the paternal side of the case detailed, lost children with the same disease, developing on the eighth day after birth."

DR. D. L. PHARES, of Starkville, Miss., being unable to attend the meeting, had forwarded to the Secretary an interesting report of an

EPIDEMIC ORCHITIS,

which occurred during the winter of 1880, over a considerable portion of the State. Parotitis, or mumps, was also prevalent at the time; and although there was an unusual tendency to metastatic orchitis, yet the orchitis frequently occurred as an independent affection, being apparently excited by the most trivial causes, such as a slight blow or even erotic sensations. The treatment consisted in the constant local application of equal parts of tincture of lobelia and glycerine to the surface of the tumefied parts. Relief in almost every instance was surprisingly prompt, the tumefaction usually disappearing within thirty-six hours.

DR. N. L. GUICE read a paper on the

HYPODERMIC USE OF SULPHATE OF QUININE,

in which he said that abscesses result from improper methods of giving, and unsuitable points selected for introducing the solutions. Although he had been using the acid solution for sixteen years, with a large number of patients ranging from two to sixty years of age, he had never seen anything worse than, in a few cases, a cold abscess containing a few minims of pus, which, being opened, healed readily. This success was due, in his opinion, to his method of giving the injection; which is such as to avoid laceration or even *tension* of the tissues as a result of the injection. He selects a region where the inner surface of the subcutaneous areolar tissue is loosely adherent to the subjacent tissues, as the dorsal surface of the forearm, or the front and lateral regions of the thorax or abdomen. With the thumb and index finger of the left hand, he elevates the skin and entire thickness of areolar tissue, and passes the needle entirely through these structures at a right angle to the direction in which they are held; carrying the point beneath the inner surface of the areolar tissue, and depositing the solution in the loose elastic tissue connecting the areolar with the subjacent tissues. Scrupulous care is required with subjects possessing a free development of the subcutaneous areolar tissue; for it is in these that we are liable to deposit the solution in the parenchyma of the tissue. Bartholow's method is probably the same, but he is not sufficiently explicit in his description, except for subjects possessing a very moderate development of the subcutaneous areolar tissue.

HONORARY MEMBERS.

On the recommendation of the Judicial Council, Dr. D. Sutton, of Lexington, Dr. T. J. Crofford, of Memphis, Tenn., and Hon. T. G Barry, of West Point, were elected to honorary membership.

The President announced the usual Standing Committees. A committee of three was appointed to conduct the President-elect, Dr. J. M. Green, to the Chair, who, in a few well-chosen words, thanked the Association for the honor which had been conferred upon him.

The Association then adjourned.

In the evening an elegant banquet was served in honor of the Association, by the Committee of Arrangements.

The next session of the Association will be held at West Point, beginning on the first Wednesday in April, 1884.

TEXAS STATE MEDICAL ASSOCIATION.

Fifteenth Annual Session, held in Tyler, Texas, April 24, 25, 26, and 27, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Texas State Medical Association convened in Albertson's Opera House, Tyler, Texas, April 24, 1883. The Society was called to order by the *President*, DR. S. F. STARLEY, of Corsicana.

The session was opened with prayer. The roll of members was then called by Dr. W. J. Burt, of Austin, Secretary. All the officers answered to their names, except the Third Vice-President.

About one hundred and twenty members were present during the sessions.

DR. W. H. PARK, of Tyler, *Chairman of Committee of Arrangements*, delivered a hearty and cordial address of welcome to the Association, and Ex-Governor R. B. Hubbard, of Tyler, on behalf of the citizens, addressed the Association.

Thirty-eight new members were elected.

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THE REPORT OF THE SECRETARY AND TREASURER showed amount on hand April 23, 1883, $489.91; amount collected during the session, $851.00; total balance on hand, $1,340.81.

THE COMMITTEE ON PUBLICATION recommended that the *Transactions* be published in a monthly series in the *Galveston Medical and Surgical Record*, as has been done for two years. A minority report recommending that they be published in pamphlet form, elicited quite a debate, and was finally adopted.

DR. A. R. KILPATRICK, *Chairman of Committee on Necrology*, reported the decease of forty-four physicians during the year. An examination showed, however, that but two of the number were members of the Association: Drs. H. H. Beck, of Sulphur Springs, and O. H. Leeds, of Columbus.

DR. JOHN A. WYETH, of New York, was elected an

HONORARY MEMBER,

and delivered a lecture to the members on medical education, taking the ground that the course of the medical student should be at least four years. He advised a high standard of medical education, based on a good and thorough literary education.

The question was discussed by Drs. Wallace, of Waco; Clofton, of Jefferson; Nott, of Goliad; Burroughs, of Houston; and Burt and Wooten, of Austin. All were of the opinion that the Board of Regents of the University of Texas should make its medical department in every particular conform to the highest standard.

The sections were all represented by well-prepared articles, amounting to over thirty in number.

DR. T. H. NOTT, of Goliad, read an interesting article entitled the *Embryo Physician*. He also read a well-prepared essay on the *Difficulties of Tracheotomy*, reporting several successful operations in his practice.

DR. A. P. BROWN read a statement from Dr. Matthews in reference to an interesting case of *Worms Passed from the Kidneys* and through the urethra of a man for several years. The case seemed to be fully authenticated. There were two varieties of worms passed; one a reddish-brown worm about three inches long, the other a smaller worm with black *head* and *hooked bills*. The worms were often alive when discharged.

DR. JOHNSON reported the case of a

CHILD MENSTRUATING AT ONE WEEK OLD

and having regular monthly discharges for six years, the present age of the child.

DR. WILL B. DAVIS read a report of twenty-two cases of

INTERNAL HEMORRHOIDS TREATED BY HYPODERMIC USE OF CARBOLIC ACID,

thirty per cent. solution, injected into the tumors.

This article elicited quite an animated discussion in reference to the best and safest treatment for internal piles; a number preferring carbolic acid, others persulphate of iron, but quite a majority who spoke insisted on the treatment by ligature as altogether preferable.

DR. A. P. BROWN, *Chairman of the Section of Surgery*, read his report on the progress during the last year, in which he very graphically portrayed the recent advancement and improvements in surgery.

DRS. E. J. BEALL and W. A. ADAMS, of Fort Worth, reported a

SUCCESSFUL CASE OF SPONGE-GRAFTING,

where a large indolent ulcer of several years' standing was cured. One point of interest in the history is that this is the second successful case reported in America, and the fourth in the world, Dr. Hamilton, of Glasgow, being the first surgeon to perform this operation.

DR. D. M. RAY read a paper on

FOREIGN BODIES IN THE STOMACH,

based on a case in which he successfully resorted to a new method of removing a pin from the stomach, viz., by giving internally a mixture of mush and cotton, expecting the pin-point to become entangled in the cotton, and by producing emesis, have the foreign body dislodged and rejected.

DR. J. J. BURROUGHS, of Houston, reported a case of

CÆSAREAN SECTION POST-MORTEM,

in which the mother in labor died of convulsions, and he at once opened the abdomen and removed a living child.

A number of other interesting papers were read by caption or synopsis, and referred to the Publishing Committee.

The President's Address was a very appropriate one, and was well received.

The banquet on Thursday night was a grand one, and reflected the taste and generosity of Tyler and her citizens.

The Nominating Committee made the following report, which was adopted—

OFFICERS FOR THE ENSUING YEAR:

President.—DR. A. P. BROWN, of Jefferson.

Vice-Presidents.—DRS. T. H. NOTT, of Goliad; J. D. OSBORNE, of Cleburne; FRANK ALLEN, of Lexington.

Secretary.—DR. W. J. BURT, of Austin.

Treasurer.—DR. J. LARENDON, of Houston.

Place and time of next meeting, *Bellon*, on the last Tuesday in April, 1884.

THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

Thirteenth Annual Session, held at San Francisco, April 18 and 19, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Medical Society of the State of California assembled in thirteenth annual session in Covenant Hall, San Francisco, April 18, 1883.

DR. JAMES SIMPSON delivered the *Address of Welcome*, and after some preliminary business, referring to organization and credentials, DR. LANE delivered the

ANNUAL ADDRESS,

which consisted of observations recently made during a visit to the Republic of Guatemala.

Guatemala contains a population of one million and a quarter of inhabitants; nearly half of these are Indians, descendants of the aborigines, who are civilized. The remaining population consists of Ladinos, who are a mixture of Spanish and Indians, and besides these a small number of foreigners of various nationalities.

Pulmonary consumption rarely ever occurs among the pure-blooded Indians, but is chiefly found among the Ladinos.

Goitre is of common occurrence, being seen chiefly among the Indian women. As there is a prevalent opinion here that the cure of a goitre tends to develop scrofula, those subject to it seldom apply for treatment. Cretinism, closely associated with goitre elsewhere, does not occur here. The prevalence of goitre renders this a good place to test Chatin's theory in regard to the origin of the disease. According to him, there is an absence of iodine in the water, air, and food in the region where the disease prevails; and that

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the general absence of the disease is owing to the fact that the most of the world is daily taking, in some form, a small dose of iodine, at least enough to retain their thyroid glands in decent limits. This subject is treated of exhaustively in Moleschott's *Circle of Life*, and the reader of that section is surprised at the vast array of observations which the last twenty-five years have brought in support of this theory.

In the vicinity of Guatemala there is a small colony of lepers, some fifteen in number, who are kept apart from the remaining population. The cases are found among Spaniards, who are thought to be descendants of the Moors.

DR. A. B. NIXON, Surgeon-in-Chief to the C. P. R. R. Hospital, read the

REPORT ON SURGERY.

He confined his attention chiefly to railroad surgery and insisted that rest, more than any other remedial agent, promotes reparative processes after severe injury.

DR. M. M. CHIPMAN read a synopsis of a *Report on Medicine, Topography, and Endemics.*

The Reports of the Secretary and of the Treasurer of the Examining Board were submitted to the Auditing Committee and found correct, as was also the Report of the Treasurer of the Society.

DR. A. H. PRATT presented a

REPORT ON MEDICAL EDUCATION.

In glancing over the literature of the subject he observes too great a tendency to laud the educational system of the old world, and to disparage our own.

Our system needs improvement in the following directions:

1st. We need endowed medical colleges that shall be independent of graduating classes.

2d. We need to lop the superfluous schools, as we have too many.

3d. The term of study should be prolonged.

4th. The most pressing demand for change is in the regulations for matriculation.

DR. W. P. GIBBONS read the *Report on Indigenous Botany.*

In his

REPORT ON HISTOLOGY AND MICROSCOPY,

DR. J. H. WYTHE said there is danger of the inauguration of a bacillus craze that will result injuriously to the cause of scientific truth. That a special form of bacterium has been found in tuberculous matter differing from most, if not from all others, by its capability of receiving the stain of aniline blue, there can be no doubt. But the real question, whether this bacillus is *the* cause, or only *a* cause, or merely a concomitant of the disease, is still unsettled.

DR. HIRSCHFELDER read the

REPORT ON PRACTICAL MEDICINE,

and gave an exhibition of the gastroscope.

In the year just closed, as in those that preceded it, there has been much groping in the dark, and many an *ignis fatus* has been followed as the true light of science. The use of pilocarpine has been greatly extended. In pleuritic effusion, we have found it of signal service in the City and County Hospital, large effusions disappearing over-night after the exhibition of a single dose of jaborandi. The œdema of nephritis disappears under its use; uræmia, however, may ensue from absorption of products of tissue-metamorphosis stored up in the plasma of the tissues. I have seen one such case, and numerous others have been reported. If the œdema of nephritis is not removed by pilocarpine, we may employ nitro-glycerine with great hope; the latter causes dilatation of the small arteries, and consequent reduction of blood-pressure; hence less fluid is forced out of the capillaries, and the disproportion between exosmosis and endosmosis of plasma is obviated. In arterio-sclerosis, angina pectoris, and other diseases attended by high arterial tension, it is exceedingly useful.

In mania, hyoscyamia acts with great promptitude and certainty; in paralysis agitans, it produces a temporary cessation of the tremor, to the great relief of the patient.

As an hypnotic, the tannate of cannabine is asserted to be preferable to morphia.

Kairine is a synthetic surrogate of quinine. By Filehne we are told that it invariably reduces febrile temperature without producing the slightest unpleasant symptom.

Frictional electricity is again in the field and clamoring for recognition. In cases of paralysis in which nerve degeneration has far advanced, the muscles may respond to franklinization when they are utterly indifferent to galvanism and faradism.

In pursuance of Koch's views, various antiseptic inhalations have been diligently employed, but with negative results. To destroy the bacillus tuberculosis, we must find a germicide that is innocuous to the human organism. Débove, of Paris, announces that consumption may be cured by forced alimentation. Dujardin-Beaumetz finds that nutrition is indeed improved, but the condition of the lung is generally unchanged. Little should be expected, however, from a month's trial.

Stretching of the sciatic nerve has been recommended in locomotor ataxia. I have had the operation performed in six cases: in one, a cure resulted; one died a few days after the operation in an epileptic attack; the others were not specially benefited. Within the last year, a causal relation has been tolerably well established between this disease and syphilis. Accordingly the anti-syphilitic treatment has been adopted, but without very brilliant results in cases of long standing. In a few recent cases, this treatment has been of the utmost service.

Among new inventions, the gastroscope has attracted considerable attention. How much practical benefit will be derived from the use of this wonderful instrument remains to be seen.

DR. C. M. FENN presented a supplementary report, on salicylic acid in certain phases of rheumatism.

DR. J. P. WIDNEY read a paper on the

CLIMATE AND DISEASES OF SOUTHERN CALIFORNIA.

He said, the dissimilarity between the climates of Northern California and Southern California, may be traced to a variety of causes:

1st. Difference in latitude.

2d. The eastward trend of the shore-line south of Pt. Concepcion, carries the coast away from the cold waters of the great Aleutian current; in its stead, a warmer counter-current, setting in from the peninsula of Lower California, bathes the northward shores.

3d. Inland, at a point corresponding to Pt. Concepcion, the Sierra, from its general southerly direction, turns almost due east and west, and walls out the northwest trade winds, which, cooled by their long course over the arctic current just mentioned, sweep through the many passes of the Northern Coast Range and down the great Sacramento, San Joaquin, and parallel coast valleys.

4th. The Coast Range, which, in Northern California, interposes a notable barrier between the coast and interior valleys, and makes a marked difference between their temperatures and rainfalls, in Southern California sinks to a mere geological rudiment. This breaking down of the Coast Range opens to the sea the whole

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valley system of this division of the State, and makes it practically a vast system of coast valleys, with the Sierra as a background.

In consequence of its openness to the sea, the southern portion of the State, in contrast to the northern, is far better drained.

Hence, Southern California is comparatively free from malarial diseases, bronchitis, pneumonia, and pleurisy. Dysentery is not frequent; acute inflammatory rheumatism is rare, the subacute less so, while that borderland of pains, half rheumatic, half neuralgic, here, as over the whole Pacific Coast, are marked features among the infirmities of poor humanity. For all nervous affections requiring a soothing rather than a stimulating climate, Southern California is preferable to Northern. In those kidney diseases in which it is desirable to make the skin do double duty, the hot, dry climate of the deserts is very advantageous. In the management of phthisical or merely feeble or delicate patients, the mildness of the Southern climate is of exceeding value. Out-of-door life is possible almost every day in the year.

DR. H. S. DOME read an able

REPORT ON MEDICAL LEGISLATION.

Not only should the public be shielded from the malpractice of charlatans, but the profession also should be protected from the intrusion of unqualified practitioners.

DR. R. BEVERLY COLE read the *Report on Gynecology*, and DR. BARKAN the *Report on Otology*.

The Nominating Committee made their report, in accordance with which the following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—IRA E. OATMAN, M.D., of Sacramento.

Vice-Presidents.—DRS. W. S. THORNE, of San José; R. K. REID, of Stockton; W. F. MCNUTT, of San Francisco; R. H. PLUMMER, of San Francisco.

Treasurer.—DR. F. W. HATCH, of Sacramento.

Permanent Secretary.—DR. WALLACE A. BRIGGS, of Sacramento.

Board of Censors.—DRS. GEO. W. DAVIS, C. A. KIRKPATRICK, C. CUSHING, A. G. ANTHONY, G. G. TYRRELL.

DR. ANABEL STUART read a *Report on Diseases of Women and Children.*

DR. J. BRADFORD COX reported two cases of *Knife Wound of the Chest.*

DR. HENRY WORTHINGTON submitted a

CONTRIBUTION TO THE TREATMENT OF PULMONARY BASIC CAVITIES,

in which he considered only uncomplicated basic cavities, the result of tubercular or inflammatory processes. Of some three hundred and sixty cases of pulmonary disease of which he has record, thirty-one were uncomplicated disease of the base, and of these twenty-eight had cavities.

Treatment in most cases consisted in constant use of respirator, internal use of bichloride of mercury and muriate of ammonia, hydrate of chloral externally as a counter-irritant, and a suitable atmosphere at a proper altitude. The mercury may be given in one-thirty-second grain doses, three times daily, as an antiseptic tonic. Its effect is often magical. In extreme cases many times these doses will be tolerated with the happiest result. In seven-grain doses every four hours, or in two-grain doses half hourly, muriate of ammonia stands preëminent among the expectorants. The continuous use of the respirator is a rational as well as admirable method of pulmonary antiseptics. A few drops of oil of eucalyptus on the respirator effectually disinfect the cavities and destroy the fetor of the expired breath. The ethereal tincture of iodine with creasote is more irritating, but very satisfactory.

DR. HENRY GIBBONS read a *Brief History of Medical Law in California.*

A paper on *Etiology and Non-infection of Sewer-gas* was read by DR. WASHINGTON AYER, and one on *Pneumonia* by DR. ALBERT CHASE.

DR. E. N. FOOTE submitted a paper on *Ovarian Dropsy* cured after thirty-four tappings, with theories of cure.

DR. E. H. WOOLSEY read a valuable and interesting paper entitled *Five Cases of Double Synchronous Amputation of Lower Extremities.* He advises operation during shock.

DR. J. GREY JEWELL read a paper on *Alcoholism.*

The attendance and interest of the meetings were well maintained throughout the various sessions, and culminated in the banquet spread at the Baldwin by the profession of San Francisco.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Thirty-first Annual Session, held at Norristown, May 9, 10, and 11, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Medical Society of Pennsylvania met in annual session, at Norristown, on Wednesday, May 9, at 10 A.M. *The President*, DR. WILLIAM VARIAN, of Titusville, in the Chair. An unusually large number of delegates and permanent members were present.

After prayer, by the Rev. Joseph McCaskey, the Secretary read the list of delegates, and DR. HIRAM CORSON, Chairman of the Committee of Arrangements, delivered an

ADDRESS OF WELCOME,

in which he referred to some of the interesting features of Montgomery County, and alluded to some of the great events of the Revolution which make the vicinity of Norristown historic ground by the footsteps of Washington and those who afterwards suffered with him at Valley Forge.

MEMBERS BY INVITATION.

DR. MARK L. NARDYZ, of Philadelphia, was made a member by invitation.

REPORT OF DELEGATES TO SOCIETIES.

A report was read by the Secretary, presented by the delegates sent to the *American Medical Association* at its meeting at St. Paul, which referred to the appointment of a Committee upon Journalizing the Proceedings of the National Association; spoke approvingly of a resolution offered by Dr. Gihon, that "it will be conducive to justice and the dignity of the profession, if medical expert testimony can be presented to the Courts without the appearance of bias or influence from either side of the case, and simply as a straightforward statement of scientific facts." The Association honored itself and this Society by electing to the presidency the venerable John L. Atlee, of Lancaster. The hospitality and kindness of the citizens of St. Paul were referred to in the highest terms.

Reports from delegates to other societies were called, but none were presented.

COMMUNICATION FROM CHESTER COUNTY SOCIETY.

The *Corresponding Secretary*, DR. JOHN G. LEE, of Philadelphia, read a communication from the Chester County Medical Society, containing a schedule of examination for students commencing the study of medicine.

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CONDITION OF LIBRARY.

DR. BENJAMIN LEE called attention to the unsatisfactory provisions now existing for the Library of the Society, and recommended that a committee be appointed, with power to act, to rent suitable accommodations in Philadelphia for the books. On motion, it was laid on the table until the next day.

STATE BOARD OF HEALTH.

By unanimous consent, DR. BENJAMIN LEE, Chairman of the Committee on State Board of Health, presented his report, as follows: The Committee, warned by previous failures, took pains that the bill to be presented to the present Legislature should be as free as possible from all objectionable features. The bill was introduced into both branches of the Legislature, and the Committee held personal interviews with several members of the Senate and House of Representatives. They demonstrated the advantage it would be to the Commonwealth, and did everything in their power to have it passed. The measure was rapidly making friends in both houses, when an amendment was offered proposing to recognize by name and to make it obligatory on the Governor to appoint upon the Board the adherents of an exclusive dogma of medicine. This was met with opposition by the medical members of the Legislature, and the bill, after being subjected to a number of amendments, was finally lost. No previous bill on this subject had received so much attention, or has been so fully discussed. The Committee feel confident that the seed thus sown will eventually bear fruit. The report closed with an appeal.

PUBLICATION COMMITTEE.

DR. WM. B. ATKINSON read the report of the Publication Committee, stating that 1,700 copies of the *Proceedings* of the last year had been printed and distributed to the members and exchanges. The expense was $1,259.86. Forty-two volumes remain on hand. The report was approved and adopted.

The report of the Committee on

SUBJECTS FOR PRELIMINARY MEDICAL EXAMINATIONS

was read by DR. O. H. ALLIS. It recommends the appointment of three examiners by each county society, without whose certificate no member of the society shall receive a student, and a full three years' course of study. The schedule of subjects recommended includes a written statement of the student's course of study, an essay, writing from dictation, spelling, reading, geography—descriptive and physical, political economy, history—ancient and modern, geology, botany, chemistry, natural philosophy, mathematics, arithmetic, algebra, geometry, English, Latin, and Greek.

DR. EDW. JACKSON offered the following resolution:

Resolved, That a committee consisting of one member from each county society be appointed at the same time and in the same manner as the nominating committee, to confer with the committee which has just reported a schedule, and report a plan for the examination of students, under the head of unfinished business, on Friday morning.

After some discussion, he accepted an amendment offered by DR. W. T. BISHOP, of Harrisburg, referring the matter to the nominating committee, and giving each delegation the privilege of substituting another member. In this shape the resolution was adopted.

NOMINATING COMMITTEE.

The delegations were called upon for members of the Nominating Committee with the following result:

Bradford, E. P. Allen; Bucks, Frank Swartzlander; Cambria, W. B. Lohmon; Crawford, Geo. O. Moody; Dauphin, W. T. Bishop; Delaware, I. N. Kerlin; Indiana, Wm. Anderson; Lancaster, J. A. E. Reed; Lycoming, Thomas Lyon; Montour, S. S. Schultz; Northampton, Chas. McIntire, Jr.; Philadelphia, Wm. G. Porter; Snyder, J. F. Kanawell.

NEW YORK CODE.

Under the head of New Business, the following resolutions were adopted unanimously:

Resolved, That the State Medical Society of Pennsylvania reaffirm its approval of, and adhesion to, the Code of Ethics adopted by the American Medical Association.

Resolved, That organized opposition by local societies or by individual members to the Code approved by the Medical Association of the United States, is rebellion against the constituted authorities, and should be so treated.

Resolved, That the Secretary be instructed to forward a copy of these resolutions to the Committee of Arrangements at Cleveland, for presentation to the Association.

MISCELLANEOUS BUSINESS.

An amendment to rules of order offered at the last session, "*Resolved*, That Rule IX. of the Rules of Order be amended so as to allow a suspension of the rules by a two-thirds vote of the members present," was discussed and adopted.

A bill for $41.46 was presented by the Committee on State Board of Health for incidental expenses, and ordered to be paid.

DR. BENJAMIN LEE exhibited two devices for the relief of writer's cramp, one having a ball enclosed in the palm of the hand, and the other consisting of a sort of bracelet, to each of which the pen is to be attached.

AFTERNOON SESSION.

DR. W. M. WELCH, of Philadelphia, read a paper on

THE WEARING OUT OF VACCINE PROTECTION AND THE EFFICACY OF REVACCINATION.

Jenner not only believed in the identity of smallpox and cowpox, but even entertained the fanciful notion that cowpox in the animal was the original or parent form of smallpox in man. According to this view, vaccinia in man was believed to be smallpox in its primitive and mildest form. Hence the protection which resulted from vaccination was regarded as permanent; or, at least, as permanent as that afforded by once undergoing smallpox.

This pleasing, but illusory doctrine was long entertained; but time and greater experience have developed an accumulation of facts which lead to a very different conclusion. It is the author's purpose to show, *first*, that the susceptibility to smallpox, however thoroughly destroyed by vaccination, may subsequently return; and, *secondly*, that revaccination can be depended upon to destroy again this return of susceptibility to the disease.

Among the most valuable statistical data proving the first proposition—valuable, because there is no room to doubt the reality and efficiency of previous vaccination—are those collected in the British army, from 1834 to 1838 inclusive. The regulations of the army required every individual connected therewith to be thoroughly vaccinated, excepting only those who had had smallpox; but revaccination was not then enjoined. The average strength of the army during this period was (including men, women, and children) about 105,000; of this number, 1,025 were attacked by smallpox, and 122 died, giving a death-rate of 11.9 per cent.

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The statistics of smallpox hospitals show that a large proportion of the cases of the disease occur among persons vaccinated in early life. During the great epidemic of 1871–77, 2,377 cases were admitted into the Municipal Hospital of Philadelphia, and of that number, 68 per cent. occurred in persons vaccinated in early life. During the recent epidemic—1880–81–82—there were 1,659 admissions, and 54 per cent. of these were post-vaccinal cases. The proportion of such cases is seen to be 14 per cent. less in the late epidemic; the explanation of which is, that revaccination was more extensively employed then, in Philadelphia, than ever before.

Dr. Welch endeavored to show still further, that the deterioration of vaccine protection is progressive; increasing up to a certain period of life with the distance of time from the primary vaccination. To prove this, he submitted the following table, containing a classification of 2,907 cases of post-vaccinal smallpox which have come under his own observation: showing the relative numbers and ages of persons attacked by the disease after vaccination, also the ratio of deaths to the numbers attacked at the various ages.

	Cases.	Deaths.	Percentage of deaths.
UNDER 5 YEARS OF AGE.			
Good cicatrix,	1	0	.....
Fair "	4	1[1]	.....
Poor "	5	1	.....
Total,	10	2	.....
FROM 5 TO 10 YEARS OF AGE.			
Good cicatrix,	11	0	.....
Fair "	9	0	.....
Poor "	26	8	30.73
Total,	46	8	17.39
FROM 10 TO 15 YEARS OF AGE.			
Good cicatrix,	45	2	4.44
Fair "	18	2	11.11
Poor "	36	4	11.11
Total,	99	8	8.02
From 15 to 20 years of age,	388	47	12.11
" 20 to 25 "	745	96	12.88
" 25 to 30 "	580	92	15.86
" 30 to 35 "	356	64	17.97
" 35 to 40 "	249	51	20.48
" 40 to 45 "	154	38	24.67
" 45 to 50 "	105	22	20.95
" 50 years and over,	175	63	36
Grand total,	2907	491	16.89

NOTE.—Doubtless, very many cases classified in the table under the headings of "poor cicatrix" were never successfully vaccinated.

The table, while it certainly shows a very gradual increase in the number of cases of post-vaccinal smallpox during the earlier periods of life, proves that the maximum number occurs at the periods immediately following puberty, thus indicating that at this eventful epoch some change is brought about in the animal economy that lessens or entirely destroys the protective influence previously exerted by vaccination. This may be the same even when the vaccination had been most thorough and complete. Dr. Welch has seen smallpox occur in persons presenting more than twenty typical vaccine marks; and he has known death to occur when as many as twelve such marks were present. The sooner, therefore, the profession and the public fully recognize the necessity of revaccination in all persons at the age of puberty, if not earlier, regardless of the quality or number of their vaccine scars, the sooner shall we succeed in the noble work of preventing smallpox, or of cutting short epidemics of the disease.

If then vaccination of the highest degree of excellence fails to confer permanent protection against smallpox, how much less must be the protection that comes from vaccination of an inferior character—such, for instance, as results from the use of partially deteriorated virus. The deterioration or diminished efficacy of vaccine virus by long humanization is a question which has been variously regarded by different observers—being accepted by some as an axiom, and rejected by others as a mere fancy. For himself, Dr. Welch said he had no hesitation in saying it was his belief that vaccine virus not only loses much of its vigor through a long series of human transmissions, but that it also suffers in the durability of its prophylactic power.

Typical vaccinia, or that type of the disease which should result from the use of animal lymph or lymph of recent humanization, requires for its fullest development and completion not less than twenty-one days, and sometimes a much longer time; while long-humanized virus not unfrequently induces a form of the disease which runs its course in about two weeks. The former is followed by a permanent, well-defined, and characteristic scar; the latter, by a superficial and ill-defined scar.

It is true that vaccinia of short duration will destroy the susceptibility to smallpox. Dr. Welch has had ample proof of this; furthermore, he would say that for vaccination after exposure to the variola contagium, his preference is for humanized virus somewhat remotely removed from the heifer, on account of the more speedy development of the vesicle and the earlier appearance of the areola. But the point he wished to emphasize is, that the protection which results from vaccinia of short duration is not so durable as that which results from vaccinia of a perfectly typical character; or, in other words, the prophylactic power exerted by long-humanized virus is less durable than that exerted by bovine lymph or lymph of recent humanization. To prove this, after what has been said, it is only necessary to show that smallpox is more fatal among persons showing poor or even fair vaccine scars than among those showing good scars. His statistics show the death-rate to be nine per cent. among patients having good cicatrices, sixteen per cent. among those having fair, and twenty-seven per cent. among those having poor cicatrices.

Having shown the necessity for revaccination, it yet remains to say something about its efficacy. Undoubtedly there is a great deal of confusion in the minds of practitioners as to what constitutes successful revaccination. Many believe that unless the vesicle pursues the course of typical vaccinia the disease is spurious and without value. But, certainly, there is no more reason why the disease induced by revaccination should be true and typical than that smallpox after vaccination should be true and typical. As varioloid differs in various degrees of severity from true smallpox, so does vaccinoid differ from true vaccinia.

Some of the most conclusive proofs of the efficacy of revaccination is furnished as the result of experience in various armies. During the Franco-Prussian war, the Prussian army, in which revaccination was carefully and systematically performed, lost by death from smallpox—under circumstances of great exposure to the disease, only 263 men; while the French army, in which revaccination was not enjoined, lost 23,468 men; and the latter army was at no time much more than one-half the size of the former.

During an experience of more than twelve years in hospital work, Dr. Welch has found that only very few

[1] This case, not at all severe, occurred in a very delicate child—a foundling—one year old.

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patients have been admitted to the hospital with varioloid who presented evidence of having been successfully revaccinated, and these few have had the disease in so mild a form that death has not occurred in a single instance. No person entering the hospital in any official capacity—as resident physician, steward, matron, nurse, laundress, or other employé—who had taken the precaution to be revaccinated before entering on duty, has suffered from smallpox in any form whatsoever. But, on the other hand, he has seen a few employés, in whom revaccination was for some cause omitted, become infected by the disease.

With such facts as these before us, the conclusion seems inevitable, that if vaccination be efficiently performed in infancy, and revaccination at puberty, if not earlier, we should then begin to realize the truth of Jenner's assertion, viz., *that vaccination is capable of extirpating smallpox from the earth.* But whether vaccination will ever be so universally and wisely employed as to confer on mankind its greatest possible benefits is doubtful.

DR. JAMES TYSON, of Philadelphia, then read the

ADDRESS IN MEDICINE.

(*See page 519.*)

DR. ESKRIDGE, of Philadelphia, endorsed the paper of Dr. Tyson, and stated that he had lived in a malarial region for many years and believed that hæmaturia is increasing in frequency in this country. He also spoke of the pathology of the disorder, and the destruction of the blood-corpuscles by the malarial poison, combined with the tendency to congestion of the internal organs. He believes that malarial disorders are changing their type, and in localities where they were formerly unknown, they are now frequent and virulent. In the treatment he approved of quinine, mineral astringents, and particularly belladonna.

OBSTETRICAL NOTES.

DR. R. L. SIBBETT, of Carlisle, read a communication based principally upon personal experience with 120 cases of child-birth; of this number there was one per cent. of maternal deaths, and eleven per cent. of still-births or death soon after birth. Forceps were used in about six per cent. of the cases. In two cases of placenta prævia, the mothers were saved, one child was dead, and one was asphyxiated but was revived by a hot bath. In one case of breech presentation, the midwife was unable to deliver the head, which remained in the pelvis several hours. He found the child dead; he decapitated it, but still could not deliver the head. Finally, he went to a neighboring blacksmith, who fashioned a sort of a vectis or hook, with which he succeeded in delivering the woman. who is still living. There was a single case of eversion of the uterus from precipitate delivery, while the patient was out of bed.

DR. HUGH HAMILTON, of Harrisburg, then read a paper on

ARTIFICIAL INFANT ALIMENTATION,

in which he advocated the use of mixed healthy cow's milk rendered alkaline by bicarbonate of soda, with the addition of a tablespoonful or two of good cream to every half pint of milk. The food to be heated to a temperature of 131° F., and afterwards sweetened by a strong, freshly prepared syrup of milk-sugar.

DR. R. N. CHASE read a paper on

INSANE ASYLUMS IN SOME OF THEIR RELATIONS TO THE COMMUNITY,

in which he refuted the popular delusion that persons of sound mind are frequently sent to institutions for the insane through sinister motives.

A number of distinguished alientists were cited, whose experience confirmed this statement. He also briefly alluded to the jury system of commitment, which is advocated as a remedy for this alleged wrong. He then considered the relation which insane hospitals bear to the causes of mental diseases, and remarked upon the melancholy fact that the work of hospitals in restoring the insane tends to spread the disease by the mysterious laws of heredity.

DR. PARRISH, of New Jersey, discussed Dr. Chase's paper, by invitation of the Society. He declared himself in accord with the position taken by the author of that paper. With regard to the last meeting of the Association for the Protection of the Insane, and a sensational paper which was read there, he merely wished to state that this paper did not represent the opinions of the Society, and was so palpably full of false statements that the Publication Committee threw it out of the *Transactions*. He believed if Dr. Chase's paper had been read before that Society, it would have been welcomed just as warmly as it was here. He mentioned this to show that the Society referred to did not sympathize with the popular clamor with regard to the commitments of sane persons to insane asylums, and their detention there against their will.

DR. STEWART, of Erie, spoke of the case of the prominent physician, whose case attracted so much attention a few years ago, because it was supposed that he was sane and unjustly deprived of his liberty. On the contrary, the speaker had known him for years, and knew him to be insane when he was sent to Dixon, Ont., ten years ago; he was taken out from the hospital by injudicious friends, although he had not fully recovered, and he is still insane. The stories he tells of the cruelties he underwent, and the horrors of the asylum are pure fiction. He was visited many times during this time when claimed to be unjustly detained, and yet he had not give any intimation of any grounds for complaint as long as he remained in the hospital.

DR. ULRICH, of Chester, said that he regretted that any misunderstanding had arisen with regard to the Society for the Protection of the Insane. The paper referred to had been at once denounced by the members of the Society, and he did not believe that such a paper would be again read before it.

DR. HIRAM CORSON said that he still thought that some reason must exist for the public clamor against insane asylums. He believed that some changes might be made with advantage. He knew of persons kept in the hospital who would be better off at home. There are sane persons in the hospitals often, because patients are not discharged as soon as they get well. Some appear to have no homes, and may remain for years in the hospital. Others are kept in the asylum, because they are more trouble to take care of at home. He referred to a case where a wife, as harmless as a child, has been kept in a hospital by her husband for years, and will probably die there; she would like to be out, and the speaker had tried to get her out, but without success, although she would have a much better chance for recovery outside. He thought that homes or retreats might be provided for this class, where they could be treated without being under the restraints of the asylum, and being depressed by the thoughts of their existence there.

DR. PARRISH said that another cause of the apparent commitment of sane persons to hospitals was the existence of drunkenness, which too often is looked upon as temporary insanity. Physicians do not sufficiently distinguish between beginning insanity and alcoholism. He regarded the law as defective. So long as drunken persons can be committed to an insane asylum, just so long will there be a popular outcry against imprisoning sane individuals. He knew of a man who had been sent thirteen times to an

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asylum, and each time entered as insane, and a short time afterwards he was invariably discharged as cured. In this way, the number of cases of insanity is apparently greatly increased. Such cases should be sent to an inebriate asylum, not to an insane hospital.

DR. SCHULTZ, of Danville, thought that some of the popular ideas on the treatment of patients in institutions for the insane arises from the fact that there is a large number of people who, having been in insane hospitals, and discharged, give statements of imaginary injuries and bad treatment to persons they meet, who do not suspect that these hallucinations are a part of the mental disorder, and do not detect the insanity of the patient. He denied that there is any difficulty in getting out of a hospital, for patients can always apply to the Courts; this being the case, no legislation will succeed in quieting public clamor.

DR. CORSON said that it may be easy enough for a man to get out, but it is not so for a woman, if her husband chooses to keep her inside of the hospital, even if a residence outside would facilitate recovery, and he reported a case in point.

DR. DE FOREST WILLARD, of Philadelphia, then presented a paper on

CLUB-FOOT, A FEW SIMPLE MEASURES FOR ITS EARLY RELIEF,

in which he discussed the subject of congenital talipes in reference only to the necessity for the commencement of treatment as soon as the child was born. No delay was necessary, as a simple adhesive strip of rubber plaster would hold the foot in position, but as this became soiled, and would irritate the skin, more permanent measures should be adopted. The indications were to bring the foot into its normal position and retain it there. The first could be best accomplished by the hand, and as nothing was equal to manual pressure, it should be perseveringly employed by the surgeon, and by the mother or nurse. Every contracted tissue should be stretched to the limit of the child's endurance many times each day, and to prevent a recurrence of the deformity, retentive measures should be constantly employed, as even the weight of the clothing would tend to misshape the bones. To secure the foot in its proper position, various methods were demonstrated, including the use of sole leather, felt, binder's board, tin, plaster of Paris, silicate of soda, and elastic tension.

By any of these means no one need permit a case of talipes to increase for want of retention dressings, while waiting for the child "to be old enough for operation." By the persistent use of the measures designated, it will frequently be found that tenotomy is unnecessary, and in the severer cases where section of the tendon is required, the operation will prove a far greater success on account of the preliminary treatment, since relapses will be less frequent.

Should the success, with the plan advised, warrant a continuance of the efforts, the same principles can be carried out by the simple plan adopted by the author, of attaching an arm to the stirrup used in the steel uprights of an ordinary club-foot shoe, at the end of which arm is an eye through which plays a catgut cord, fastened opposite the anterior heads of the metatarsal bones (either externally or internally, according as the case be one of varus or valgus), and to which cord is attached elastic webbing running up to be fastened to a button at the top of the upright. An inexpansive joint, which permits motion in every direction as readily as a ball-and-socket joint, is formed opposite the medio-tarsal articulation by simply paring down the sole for a half inch in front of the stirrup to the thickness of a piece of writing paper. If the child is not walking, and no dirt or water will enter, the anterior part of the shoe can be made separate from the heel portion, the connection at the sole being only by means of a strip of soft upper leather. Such a shoe fulfils perfectly and simply the indications required, namely, the rectification of the deformity at the astragalo-scaphoid and calcaneo-cuboid articulations, while, at the same time, the plantar fascia and the contracted gastrocnemius and soleus are stretched, if the case be one of equino-varus. Should the contractions fail to yield, tenotomy or other operative measures must be instituted, but the present discussion is purposely limited only to simple, ready, mechanical means of cure.

EVENING SESSION.

The Association met at 8 P. M. to hear the

ANNUAL ADDRESS OF THE PRESIDENT,

delivered by DR. WILLIAM VARIAN, of Titusville, who said—

Gentlemen: Thirty-five years ago there met, in the city of Lancaster, a small and earnest body of medical men, who organized the Medical Society of the State of Pennsylvania, and announced as their object "The advancement of medical knowledge, the elevation of professional character, the protection of the professional interests of its members, the extension of the bounds of medical science, and the promotion of all measures adapted to the relief of suffering, the improvement of the health, and the protection of the lives of the community." More than a generation of human beings has accomplished its earthly pilgrimage since that meeting was held; yet it is still our privilege to see in the audience here assembled more than one of the original founders of this Society, who in the year 1848 were present at its organization. In contrast with that period, and of the few early members, he pointed to the eighteen hundred names now enrolled upon the list of members, and to the increase in importance and influence of this Society, and its great work already performed in unifying the profession, and in influencing efficient legislation in behalf of State hygiene. In referring to the great work yet to be done, he very earnestly called attention to the need of a State board of health, strengthened and supported by local boards in every city, town, and borough; and in spite of discouragements, he urged continuing their efforts upon the Legislature, until the necessary authority is conferred. He then spoke of the hygienic problem of the disposal of the dead, and advocated cremation, as a measure both of public hygiene and æsthetic fitness. Calling attention to the need of more enlightened and humane treatment of the inebriate, whose organs and tissues are in a state of disease due to chronic alcoholism, he invited attention to the great improvements that have recently been made in the treatment of the insane and feeble-minded from other causes than alcohol, and declared his conviction that some such steps should be taken on behalf of the equally unfortunate and irresponsible victims of alcohol, who now are too often treated as felons, and thrust into the workhouse or jail, then discharged with enfeebled mind and body to encounter temptation, without having obtained any physical or mental strength to resist their depraved instincts. The frequent repetition of this course soon produces a real criminal, or else ends in a pauper's grave or an insane hospital. The elegant asylum where the rich inebriate may go after his debauch has the same fault, the patient is too often allowed to go out before he has physical strength to reform.

The topic of vaccination was then taken up, and the relative merits of humanized and bovine lymph compared; having tried the bovine virus for ten years, he had gone back to the humanized, as being more cer-

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tain, reliable, and efficient than the bovine, which often produced phagedenic ulceration. He said, "an experience of nearly thirty years' use of humanized virus has shown me that it possessed great power against variola, together with certainity of action and freedom from any such effects as above described. Less than ten years' use of animal virus has led me to believe that it is uncertain in its action, that its protective power is not so lasting, and that, at times, it was not free from a liability to produce disastrous effects." Its protective power seems to be in many cases much less than the former, and in the inflammatory cases there is a grave doubt if it confers any protection at all. There is great need of State supervision over the sources of vaccinia.

In connection with medical education, he asked that the establishment of a chair of State medicine and hygiene be urged upon our medical schools, attendance being made obligatory, and that the students be required to pass an examination upon the lectures previous to graduation.

The dilatory appearance of the *Transactions* of the Society was mentioned, and as a means of remedying this fault which had given rise to just grounds of complaint, he suggested reducing the Publication Committee to one member, who should be made responsible for the early appearance of the work; or the offering of the *Transactions* to some weekly medical journal for early publication, in place of issuing the annual volume.

The action of the New York State Medical Society in rejecting the Code of Ethics, and renouncing the authority of the American Medical Association, was condemned in no measured terms, and denounced as unnecessary, unjustifiable, and revolutionary.

The orator closed his address by an appeal to the non-medical portion of his audience to encourage higher medical education, to sustain efforts to obtain legislation for sanitary purposes, and to advance State medicine, and recommended the endowment of chairs in established medical schools in preference to starting new enterprises, thus enlarging the usefulness and lessening the expense of a generous medical education.

RECEPTION AND BANQUET.

The State Medical Society was honored by a reception and banquet this evening, given by the Montgomery County Medical Society. The entertainment was largely attended by the members and their ladies.

THURSDAY, MAY 10TH. SECOND DAY.

MORNING SESSION.

After prayer by the Kev. H. M. Kieffer, the Nominating Committee was announced.

DR. A. CRAIG, of Columbia, then read the

ADDRESS IN SURGERY.

DR. E. O. BARDWELL, of Emporium, read a practical paper on

SCARLET FEVER AND ITS TREATMENT,

based upon a series of 176 cases under his care. He found that, as a rule, coincidently with desquamation albumen, red blood-corpuscles, tube casts, and epithelial cells appeared in the urine. He regards the renal trouble as being not a sequela, but one of the essential phenomena of the disease. For this condition of the kidneys, hydragogue cathartics (compound jalap powder particularly), and infusion of digitalis with potassium acetate, are considered the most useful remedies. Tincture of the chloride of iron, is highly recommended for the throat, and for its effect upon the kidneys; for headache, potassium bromide is recommended in preference to morphia, which should be avoided on account of its influence in decreasing the urinary secretion. Quinine as an antipyretic is worse than useless, in comparison with the tepid bath or pack, the effects of which are much more lasting.

In cases of uræmic convulsions, the hot bath frequently repeated, stimulating enemata, and compound jalap powder, have proved successful in restoring the patient.

Of the 176 cases, only five died; three of these were moribund when first seen, the other two died from the effects of diphtheritic complication.

DR. E. A. WOOD, of Pittsburg, then presented a paper on

A DEFORMITY WHICH SOMETIMES FOLLOWS DISLOCATION OF THE FOOT OUTWARDS AT THE ANKLE-JOINT.

After a severe injury, as a blow or a fall, by which the foot is dislocated outward, and by which the distal end of the tibia is contused, split, or impacted, but in which the luxation is the only condition manifest, it sometimes happens that the ankle is deformed by enlargement of the distal end of the tibia, by increased malleolar space, by turning of the foot outward, as in *talipes valgus*, and by the foot presenting outside the axial line of the leg.

Injury of the end of the tibia is likely to be followed by inflammation and enlargement, and the degree of each will be proportionate to the severity of the force which caused the same. Enlargement must widen the malleolar space—space which the astragalus cannot fill. In this case, the deformity is obvious. But there are other elements which add to the deformity. In the case before us the internal lateral ligaments are completely severed, while the external lateral are not. When the intermalleolar space is widened, the intact ligaments which bind the foot to the fractured lower end of the fibula will keep the foot in contact with the latter bone, while the internal malleolus will project inwards. This distance between the internal surface of the astragalus and the internal malleolus will retard or make impossible the repair of the internal lateral ligaments.

It will be seen that the deformity may not be apparent when the dressings are removed, say at the end of two months, but when the patient attempts to walk on the injured member he finds it weak and tender. When he persists in bearing his weight thereon, he will soon begin to notice that the foot is not right, and the surgeon will then see that that member is turned outward, is outside the leg axis, and that the internal malleolus forms a very prominent tumor, almost touching the floor when weight is borne on the unsound foot.

If the surgeon is observant, he will now see why the deformity exists; the intermalleolar space is abnormally widened, making repair of the internal lateral ligaments impossible or insufficient.

The only way to arrest the trouble and make the deformity minimum, is to keep the foot in suitable dressings for a long time, and that time may be a year or years. At the shortest and best, it will be a long time.

DR. WILLIAM PEPPER, of Philadelphia, then read a paper entitled a

CONTRIBUTION TO THE CLINICAL STUDY OF TYPHLITIS AND PERITYPHLITIS.

After alluding briefly to the usual favorable course of ordinary cases of this affection, he dwelt upon the extreme importance of pursuing treatment embracing absolute rest and a carefully restricted diet, until a complete cure was effected, so as to avoid the very strong tendency to relapse. Allusion was made to the ulcerative and perforating forms, and he dwelt upon the importance of the early recognition of the tendency

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to abscess. Exploratory puncture should be made, followed by operation for evacuation if abscess be detected.

Cases were quoted illustrating some of the difficulties of diagnosis and the advantage of operation. Especial stress was laid upon the strong tendency of such cases of typhlitis to recur, and finally, unless treated with great care, to pass into a chronic form. Several illustrative cases were given bearing on this point, which further showed that even where very frequent relapses had occurred, a complete and permanent cure might be obtainable.

DR. S. W. GROSS, of Philadelphia, read a paper on

THE THOROUGH REMOVAL OF CARCINOMA OF THE BREAST,

in which he advocated the amputation of the entire breast with its superjacent skin and fat, no matter how small the growth may be or how sound the skin may appear, along with the removal of the fascia of the pectoral muscle, and opening the axilla, with a view to cleaning it out if the glands are found to be invaded by the disease. This mode of operating is indicated because the remains of the breast, the fat, skin, pectoral fascia, and axillary glands are the seats of recurrence, or rather of the continuous growth of portions of diseased structures which are left behind in the operations as usually performed. For these reasons, the operation which he suggests is alone adequate to effect riddance of the tissues in which reproduction takes place.

Dr. Gross has operated in the manner indicated in 20 cases, of which only one died. Excluding one case, in which all diseased structures could not be removed, and 3 in which the history ceased with the recovery of the patient, he gave a synopsis of the remaining 16. Of these 9, or 56.25 per cent., were failures, one having died, one having been incomplete, and 7 having recurred within a year; and 7, or 43.75 per cent., were successes, the patients having remained free from recurrence for periods varying from eleven to fifty-six months, or twenty-seven months and a half on an average. Three of these living cases were presented to the Society, of which one was free from reproduction for sixteen months and a half after operation, one for three years and eight months, and one for four years and eight months. In the first and third cases the axilla was cleaned out, while in the second it was explored with the finger, but as it was free from disease, its contents were not disturbed. In all of these patients the cicatrices were soft, pliable, and freely movable on the pectoral muscle.

THE TREATMENT OF PURULENT PLEURAL EFFUSIONS

was considered in a paper by JAMES C. WILSON, M.D., of Philadelphia. He said that, with few exceptions, pleural effusions are not primarily purulent, but serous; they become purulent by degrees, resorption not taking place, and the inflammatory process continuing. From a clinical point of view, the distinction between fibrino-serous and purulent exudations is of the highest importance, as the former are capable of resorption; the latter, as a rule, are not. Physical signs alone will not determine the character of the effusion; but the coexistence of great pallor, emaciation, irritative fever and sweating, or diarrhœa, makes the presumption of the existence of pus very strong. In case of doubt, a hypodermic syringe will enable us to make a diagnosis by an exploratory puncture and aspiration. The treatment of purulent collections in the pleura is affected by the age of the patient. In a child, repeated aspiration is often followed by complete cure. This result will not follow in adults; it is in vain to look for cure in such cases by this means. In order to cure, it becomes necessary to establish a thoracic fistula with as little delay as possible, the pyogenic surface of the pleura being frequently washed with antiseptic injections. The fistula is to be kept open for free drainage until the patient is cured. The question of whether the empyema be primary or secondary, does not affect the treatment of the pleural pus collection. The point of election is in the sixth or seventh interspace in the posterior axillary line. The preliminary aspiration of part of the fluid is recommended a few days before the operation for permanent drainage. Threatening collapse may be relieved by cardiac stimulants, and a hypodermic injection of morphia. The administration of salts of ammonia after operation, and the exercise of due care in washing out the pleural cavity, are advised, in order to prevent heart-clot.

The main steps of the operation and after-treatment are outlined as follows:

The Preliminary Aspiration.—The puncture by means of short trocar (not exceeding two inches in length), the canula being retained only until the pus ceases to flow, when a soft rubber (Nélaton or Jacques) catheter is slipped through the canula, and the latter withdrawn. Catheters are preferable to sections of drainage-tubes, by reason of the ease with which they can be reintroduced into the sinus by means of a probe. It is occasionally necessary to change the catheter or to remove it to clean it.

Washing out the Cavity.—This is done by a ball-syringe and rubber tubing, and is to be repeated once or twice a day. The temperature of the solution should be 102.5°, and very slight force used; about one-fourth the quantity of pus removed is the right quantity for each injection, which is to be repeated until the fluid comes away clear, or slightly turbid. The solution preferred is mercuric bichloride ($\frac{1}{5000}$) as an antiseptic and disinfectant. This treatment is to be continued until the discharge is serous and reduced to two fluid-drachms daily; the tube may then be withdrawn and the sinus allowed to close. The existence of a spontaneous opening in the chest-wall, does not prove a contra-indication to this precedure; it is generally badly located, tortuous, and inefficient; bronchial fistulæ also do not modify the treatment. The administration of ether is not advisable in performing the operation on account of existing dyspnœa; the adoption of local anæsthesia by the application of ice, will generally prove sufficient.

DR. CHAS. K. MILLS read a paper entitled

THE MEDICAL SERVICE OF INSANE HOSPITALS,

in which he discussed the necessity of the individual investigation of patients in such hospitals, the importance of a larger resident staff, the advisability of having a competent consulting board, and a pathologist and microscopist, and similar matters. Some of the suggestions and provisions reported by Governor Hoyt's commission to examine into the present system for the care of the insane in the State, were commented upon, some being advocated, others criticised.

(*To be concluded.*)

NEW YORK SURGICAL SOCIETY.

Stated Meeting, April 10, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

HYGROMA OF THE TONGUE.

(*Concluded from page 502.*)

DR. GERSTER presented a specimen of congenital hygroma of the base of the tongue, removed from a girl thirteen or fourteen years of age. This cystic swelling was noticed quite early in life. The child

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was presented to him by Dr. F. Serr. He found a tumor, of the size of a rather large English walnut, occupying the most posterior portion on the left side of the tongue, extending about two-thirds the length of the tongue forward, and reaching posteriorly to the anterior pillar of the fauces. By a puncture and examination of the contents, he diagnosed hygroma. Finding that the empty sac had rather thick walls, and recollecting that he had had an unsatisfactory experience in treating these tumors by any of the methods commonly employed, he decided to lose no time, but to attack the growth and remove it entirely. He first ligated the lingual artery; he then held the mouth open by the use of Whitehead's speculum; a fillet was thrown through the base of the tongue, and with this the organ was pulled well forward. The tumor was then exposed by an incision carried along the edge of the tongue, and the sac excised by means of the forceps and a pair of scissors. The hemorrhage was so very slight that the excision could be performed rapidly. The cavity was mopped out with a five per cent. solution of carbolic acid, and the edges of the wound were stitched together with very fine silk. He carried the incision along the edge of the tongue purposely, in order to bring it into the portion of the oral cavity where the dressing could be retained without difficulty. A piece of gauze, powdered with iodoform, was placed between the tongue and gums opposite the line of incision, and it was retained in that situation for thirty-six hours. When it was cast out, the wound was found without irritation, and united. Likewise did the deligation wound heal by first intention. The subsequent progress of the case was very favorable, and the child was dismissed from the hospital cured on the fifth day. He thought that complete extirpation of these growths was the most advisable method of treatment, especially for dermoid cysts which occasionally grow in this locality.

URETHRAL CALCULUS.

The PRESIDENT presented a specimen of urethral calculus together with a fragment of a flexible catheter taken from a man sixty-nine years of age, who had suffered for thirty years with vesical symptoms, which during the past ten or fifteen years had been supposed to be due to the presence of a calculus somewhere in the urinary passages. Shortly before the patient came under Dr. Markoe's observation he presented himself to a physician residing outside of the city, complaining of symptoms of stone of the bladder, such as irritation, passage of blood, and stoppage of the stream, and the doctor had detected a stone in the course of the urethra. He then passed his instrument into the bladder, and, as he thought, detected stone there. The case was interesting because it illustrated the uncertainty of the vesical exploration, as would be subsequently seen, when a stone exists in the urethra. The physician stated that he could feel distinctly a stone on either side as he turned the point of the instrument within the bladder. Further manipulations were resorted to for the purpose of removing the stone in the urethra, which was situated just at the peno-scrotal junction. The doctor tried in various ways to get rid of it, but did not succeed; he then hit upon the expedient of taking an elastic bougie, cutting a piece out of one side, and then passing it beyond the stone, hoping that the opening in the side would allow the edge of the stone to so engage in it so that he could pull it out. The idea was correct mechanically, and it caught the stone, but in trying to extract the extremity of the catheter was pulled off and left posterior to the calculus. In that condition the patient presented himself at the New York Hospital. Dr. Markoe found the stone in the urethra, but was not able to form a definite opinion with regard to the existence of a stone in the bladder; nor could he ascertain the position of the fragment of catheter. He therefore proceeded as if it might be possible that a stone existed in the bladder, also thinking that it was quite probable that the end of the catheter had entered the bladder. He made an incision as for the median section in lithotomy, and introduced the finger into the bladder for the purpose of exploration. At this point, it occurred to him to avail himself of the opportunity to test the suggestion made by Sir Henry Thompson, that the inner surface of the bladder could be explored with the greatest facility by the finger for the detection of calculi, tumors, etc., and he therefore instructed himself with reference to this point, and found that he was able with the greatest ease to ascertain exactly any irregularity or any roughness upon the inner surface of that viscus. He found nothing in the bladder; neither stone nor piece of catheter. The inference, therefore, was that the catheter was anterior to the opening in the urethra, which was made in the membranous portion. He therefore extended the incision forward slightly, passed the forceps forward, and first seized the little piece of catheter, and then passing the instrument a little further on, came upon the stone, seized it and removed it. No bad symptoms followed the operation, and the patient was discharged from the hospital at the end of two weeks.

WOUND OF THE INTERNAL JUGULAR VEIN; LIGATION; EXCISION; RECOVERY.

The PRESIDENT also presented a glandular tumor which merely served as a text for the recital of the history of the case in which an operation was performed for its removal. The case was one of lymphoma of moderate size, occurring at about the middle of the left side of the neck, in the chain of lymphatic glands behind the sterno-mastoid muscle. He made his incision so as to reach the tumor behind the sterno-mastoid, and, partly cutting and partly enucleating, without much difficulty reached the deeper portion of the tumor; but when this point was reached, it was found that the growth projected forward and beneath the sterno-mastoid muscle, and he was obliged to draw the entire mass backwards and outwards in order to effect its removal. In so doing, it became very difficult to be certain as to exactly what he saw and what was divided in separating the attachments of the base of the growth. When the tumor was nearly separated, he was suddenly shocked by the occurrence of a hemorrhage which was something terriffic. It was evidently venous blood, and was pouring out in a stream as large as his little finger from the bottom of the wound. Instantly, he plugged the wound with sponges, and then the difficulty was to get at the bleeding point, which was evidently either the jugular vein, or some other vein of large size. For one moment he heard a hissing sound, but he was not certain whether it was actually due to the entrance of air into the vein or not. After a little time, constant and careful pressure upon the bleeding point being continued, he carefully and slowly withdrew the sponge, constant pressure also being maintained both above and below, and was able, after several trials, during which much blood was lost, with the forceps to catch first the anterior source of the hemorrhage, and passed a ligature about it. Bleeding from this point was arrested permanently and perfectly. Then the posterior and deepest portion of the wound was dealt with in the same way; and he finally caught a large portion of tissue, including the bleeding point, threw a ligature about it, and the hemorrhage ceased. When this had been done, he found that the point from which the hemorrhage came was just above the bifurcation of the common carotid artery, and the bleeding

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point was evidently from where the lingual and superior thyroid veins unite and empty into the jugular veins, and he tied these vessels. The other ligature was found to be on the side of the internal jugular vein; it was tied firmly; but he felt unwilling, and so he had always felt, to leave a lateral ligature on the jugular vein. He therefore dissected the parts carefully, exposed perfectly and clearly the vessel, put a ligature around it above and below, and cut off a piece between, partly to release the tension, and partly because he wished to see the lumen of the vessel, in order to be sure of what had been done. The points of the severed vein were now at least two inches distant from each other. The wound was left open to heal by granulation. The progress of the case was most favorable, and the patient is now perfectly well, no unfavorable symptom having developed, nor local hemorrhage having occurred.

Dr. S. W. Gross, who has collected the largest number of cases of ligation of veins, has recorded fatal results in twenty-two out of one hundred cases, the fatal results being largely due to phlebitis and septicæmia. Of these twenty-two cases, in five the patient died of secondary hemorrhage, and it was a singular fact that in every one of these five cases the ligature has been applied to the side of the vessel. No death had occurred from secondary hemorrhage in any case included in his tables, from ligature of the vein in continuity or at its cut extremity. Dr. Markoe believed that the proper plan to pursue was to throw a ligature completely around the vessel, and to leave the wound open to heal by granulation.

FRACTURE OF THE BRIDGE OF THE NOSE.

DR. POST was consulted two weeks ago by a young lady from Michigan, who had a deformity of the nose caused by fracture of the bridge. The nose was extremely flattened. He made an incision on each side, opposite the sutures between the nasal bones and the superior maxilla, with the chisel separated the bridge, and then introducing a firm director, brought them up into place as nearly as possible. The wound was progressing favorably, and there was a marked improvement in the deformity, although it had not been entirely corrected.

DR. WEIR remarked that he had found it desirable in a number of cases to fracture the central portion first from within, and then to separate the nasal bones from the maxilla by the chisel, when the fragments could be readily put in proper position, and easily retained there.

NEWS ITEMS.

CINCINNATI.

(From our Special Correspondent.)

A CASE OF NEPHRECTOMY.—DR. C. D. PALMER, of Cincinnati, reported at the last meeting of the Academy of Medicine, a case of nephrectomy in a young lady, æt. 19, of German descent, who had been in poor health for two years and more, suffering, it was supposed, with some ill-defined uterine disease, chronic cystitis and albuminuria. When his attention was asked to the case, she was emaciating rapidly, had a red, glazed tongue, complete loss of appetite, occasional vomiting, and diarrhœa, and complained of frequent and very painful urination. His attention was especially directed to the urine, which was seemingly natural in quantity, but very thick and milky. An examination of it showed mucus, much pus, and albumen (one and half per cent.). The bladder was very tender to touch per vaginam, its walls thickened, and its capacity diminished to ʒij. Even the introduction of the smallest and softest gum catheter gave pain.

A careful regulation of the diet, and medication, together with the washing out of the bladder with warm water, medicated with salt, boracic acid, morphia, and atropia, only temporarily relieved the patient. A few weeks from his first visit, the patient was seized with chills, followed with high fever and profuse sweating. These chills were repeated twice subsequently, at irregular intervals. Soon following the first, a previously ill-defined pain in the back became very severe, and there was gradually an increasing tenderness and fulness, manifest just anterior to the right lumbar region, so that in some ten days, it presented a defined outline, and a certain degree of doughiness; on several occasions during these ten day, the urine, which for months had been very turbid and evidently purulent, became nearly clear, probably owing to an obstruction within the right ureter.

It was evident that the patient was rapidly loosing ground, and that medical treatment could be of no avail. With a diagnosis of pyo-nephrosis, and with a proposal to institute surgical relief, Dr. Ransohoff saw the patient with Dr. Palmer. An aspirator needle confirmed the existence of pus, and the day following, the patient being under the influence of the a. c. e. mixture, Dr. Palmer, assisted by Dr. Ransohoff, commenced the operation by an incision over the most dependent portion of the enlarged kidney, which was a point about midway between the linea alba and the lumbar region proper, to the right of the rectus muscle. The distended kidney having been reached through the peritoneum, was first tapped with a small trocar, and only a small quantity (1–2 oz.) of pus withdrawn. The incision and point of opening of the kidney were made in this locality, because it seemed highly probable, from the conduct of the enlargement and the nature of the symptoms, that nephrotomy or opening into the kidney, and draining it by a tube, and stitching the wall of the organ to the abdominal walls, might answer every purpose, and be attended with less danger than extirpation of the organ.

But this course proving unavailing, the peritoneum from the line of incision, was stripped off the lateral abdominal walls, exposing the surface of the kidney, which was then enucleated from its bed, ligated at the hilus of the organ with a stout ligature, and cut off. A free opening was then made through the posterior lateral abdominal wall into the cavity remaining for the purpose of drainage, the ligature drawn through, the sac thoroughly cleansed out with hot water, and the abdominal walls closed and dressed much after the manner for ovariotomy.

The patient lived three and half days, and died of peritonitis.

No post-mortem was allowed.

The operation was undertaken with the patient in a most critical condition, and was almost a forlorn hope. It was done because it was the only remaining thing to do.

The kidney removed was greatly enlarged, weighing some 14 oz. Its walls, especially the anterior, much thinned, its pelvis dilated. Numerous sacs, the seat of pus accumulations, were distributed throughout.

The left kidney, in all probability, was healthy. At least, there was no evidence prior or subsequent to the operation, which indicated any disease on that side. It is much to be regretted that a post-mortem could not have been obtained to settle this point, as well as the amount of disease having existed in the bladder.

This is the first case of nephrectomy in Cincinnati, or the State.

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NEW ORLEANS.

(*From our Special Correspondent.*)

THE mortality from smallpox has again become very large. For the week ending April 28th, there were 45 deaths; 17 white, and 28 colored.

MONTREAL.

(*From our Special Correspondent.*)

CHANGES IN MCGILL MEDICAL FACULTY.—Professor Wright, in whose class there were disturbances during the past session, has resigned. His successor will probably be Dr. James Stewart, of Brucefield, Ont. Dr. McCallum, the Professor of Midwifery and Diseases of Women, has also resigned. He will be succeeded by Dr. A. A. Browne, his assistant, as Professor of Midwifery, and by Dr. Wm. Gardner as Professor of Gynecology.

Dr. Wilkins, of Bishops College, succeeds Dr. Gardner in the chair of jurisprudence, and Dr. R. L. MacDonnell takes the lectureship on hygiene.

BERLIN.

(*From our Special Correspondent.*)

VEREIN FÜR INNERE MEDICIN.—Medicine has been recently aroused from a long slumber, Professor Leyden acting the prince in the fairy tale. Finding internal medicine more and more overpowered and nearly suffocated by the all-absorbing interest for operative procedures, surgery becoming rather triumphant after the wonderful successes gained by the Listerian treatment, he ventured to separate himself, with Frerichs, Fraentzel, and their followers, from the great general Berlin Medical Society, existing since 1860. This secession took place in 1881, when the medical society was still under the presidency of Langenbeck,[1] who always strongly upheld the principles of the unity of all medical disciples as represented by a great general association. But notwithstanding that this influential leader of the profession published an energetic Philippic against what seemed to him an act of apostasy, the unexpected success of the new "Verein für innere Medicin" has clearly proved its right to existence. To-day the number of its members amounts to upwards of fifty, most of them being also in the mother association. Persevering in his task, Prof. Leyden organized among the teachers of clinical medicine and medical practitioners of Germany a congress which is periodically to be held in the splendid watering-place of Wiesbaden. The first spring meeting held last year was very well attended. Frerichs delivered the opening address. The discussions on Bright's disease, on antipyretic treatment, on styptic medicaments, etc., are already published in the *Transactions*. The second session will be held in the beginning of May.

THE ANNUAL MEETING OF THE GERMAN SURGICAL SOCIETY.—Meanwhile, we have had the pleasure of seeing at Berlin the twelfth annual meeting of the German Society for Surgery last week—B. v. Langenbeck in the chair. Although for the first time leaning on a walking-stick, the Nestor of German surgery presided in his old manner, and seemed as fresh, courteous, and benevolent as ever. It is nearly impossible to give a short abstract of the rich contents of the transactions. There were long debates on operation for goitre, on gastro-enterotomy, on bismuth as an antiseptic. Dr. Hagedorn (Magdeburg) recommended the common bog-moss as a powerful absorbent, excelling by its cheapness, and adapted to displace the more expensive antiseptics, at least in the outer layers of permanent antiseptic dressings. Dr. Fehleisen went so far as to recommend his above-mentioned cultures of the erysipelas micrococci for inoculation in cases of inoperable tumors, or lupus, or chronic inflammatory deposits, arguing that the micrococci, kept pure through a long series of generations, would always produce simple erysipelas, free from septicæmia, or even phlegmonous suppuration, the danger of life thus being reduced to a minimum.

Of single cases brought before the Congress, there is to be mentioned a successful ligature of the common iliac artery, performed by Dr. Kümmel, the assistant of Schede, in Hamburg. Professor Bergmann introduced a patient suffering from aneurism of the innominate, which had been very much diminished in size by the contemporaneous ligature of the right carotid and subclavian, according to the method of Brasdor and Wardrop. Professor Schönborn, of Königsberg, brought forth a very interesting specimen of a kidney-shaped, brownish tumor, wholly consisting of a compact mass of hair. By laparotomy, it was taken out of the stomach of a hysterical young lady, who, for some years, had indulged in biting off the ends of her long tufts, which procedure, according to her opinion, would give her a fine, clear voice. A diagnosis in the somewhat scoliotic patient proved impossible before the operation, the tumor being so movable that all observers inclined to take it for a dislocated kidney. There are seven similar cases mentioned in literature, all with the same etiology—six of them in females. All the patients died, since no diagnosis and no operation were made. Many other papers were read before the Congress. Most of them will be published as usual in Langenbeck's *Archiv*.

[1] Now followed by Virchow.

PREPARATIONS FOR THE YELLOW FEVER SEASON.—At the meeting of the Executive Committee of the National Board of Health, held on the 30th inst., the refuge stations at Norfolk, Va., Sapelo Sound, Ga., and Ship Island, Miss., were ordered to be opened as soon as the necessary details could be arranged. The Inspection Service in New Orleans and on the Mississippi River was also directed to be organized for immediate work. It is expected that by May 15th the preparations will be completed and the stations in condition to provide for the detention and disinfection of suspected vessels, and for the reception and treatment of such vessels as have yellow fever on board. At most of the Southern ports the quarantine laws became in force May 1st.

THE AMERICAN MEDICAL ASSOCIATION.—The next annual meeting of the American Medical Association will be held in Cleveland, June 5–8, inclusive. All railroads west of Pittsburg, Salamanca, and Buffalo, east of Chicago, and south of Cleveland, will carry delegates, and members of their families, to Cleveland at one full fare, and return them on certificate signed by the Chairman of the Committee of Arrangements (certifying that they have been in attendance at the meeting of the Association), at one cent per mile. The trunk lines east of Buffalo, Salamanca, and Pittsburg, and lines west of Chicago, have refused to make any reduction. The rates at the hotels range from $3 to $2 per diem.

THE IOWA STATE MEDICAL SOCIETY will meet at Council Bluffs, and the West Virginia Medical Society at Trapton, on Wednesday, the 16th inst.

THE BOARD OF EXAMINERS OF NORTH CAROLINA will meet in Tarborough on May 14th.

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THE MISSOURI STATE MEDICAL ASSOCIATION will hold its annual meeting in Jefferson City, Mo., on May 15th, 16th, and 17th.

THE NORTH CAROLINA STATE MEDICAL SOCIETY will hold its thirtieth annual meeting in Tarborough on May 15, 1883.

THE NORTH CAROLINA BOARD OF HEALTH will meet in a joint session with the State Medical Society on May 16th.

WOMEN'S MEDICAL COLLEGE OF PHILADELPHIA.—Dr. William W. Keen has been elected Professor of Surgery in this institution.

THE NEW YORK STATE BOARD OF HEALTH has elected DR. E. M. MOORE, of Rochester, President, and DR. ELISHA HARRIS, Secretary. The President reappointed all the committees of last year.

PHILADELPHIA POLYCLINIC.—It is announced that the Philadelphia Polyclinic and College for Graduates in Medicine receives neither *free* pupils nor medical *students* in its classes, which are designed for graduates only. The various departments have now a membership of twenty-six. In some branches, the classes will accept no more members, except by special arrangement for extra hours.

THE CODE CONTROVERSY.—DR. JACOBI, of New York, in behalf of the advocates of the New Code, has just issued an address in German to the German physicians.

"A No-Code Man" writes to the *N. Y. Tribune* that "the 'New-Coders' would do well to be a little consistent at this particular time, and as the New Code prohibits interviews and other newspaper communications on medical matters, it would not be improper for them to follow its precepts and keep out of the newspapers."

The *N. Y. Tribune*, which apparently enjoys the confidence of the advocates of the New Code, gives the following *résumé* of the present condition of the controversy in New York:

"In the matter of securing signatures to the pledges for and against the re-enactment of the old Code of Ethics of the American Medical Association, the conservative party among the physicians in the city are still considerably in advance of the liberals. The advantage which they secured by early organization and an aggressive campaign at the outset, they continue to maintain. Even their opponents are compelled to admit the excellence of their leadership, and the perfection of their discipline, while they condemn some of the methods employed by them in their effort to regain the territory lost in the County and State societies last year. The criticism of methods, however, is mutual, the conservatives retorting to the charges of secrecy which the liberals make so frequently, that they are not only acting in harmony with the traditional customs of the profession, but that the New Code itself is the achievement of an organization that took them by surprise last year. They say that the delegation which went to the State Society from the County Society was a pledged body, and that they were forced into an organization by the fact that they were helpless in the hands of the greater number and superior parliamentary skill brought to bear against them by their opponents. The latter were active, first, because they were the aggressors, and now they were at the disadvantage of being obliged to defend territory which the conservatives say was won unfairly.

"The Academy of Medicine fight does not seem so much of a mistake to the conservatives as it seems to the liberals. They contend that the resolutions introduced were strictly within the letter and spirit of the organic law of the Academy, the National Code of Ethics being part of its by-laws, and that it was entirely proper to instruct the Committee on Admissions to ask every applicant for fellowship whether he could sign the by-laws, and reject him if he was opposed to them. To this the liberals answer that a New-Code man has a perfect right to become a fellow of the Academy, and that he can conscientiously sign the by-laws without losing his right to disagree with them and work for their repeal within the Academy. The case, they say, is analogous to that of law-abiding abolitionists during the existence of the slave laws. They were bound not to violate them, yet they had the right to go to Congress and labor for their repeal."

A STATEMENT FROM DR. AUSTIN FLINT, JR.—In a communication to the *New York Medical Journal* (May 5, 1883), Dr. Austin Flint, Jr., makes the following statements of the causes which led to the presentation of the resolutions which were passed at the late meeting of the New York Academy of Medicine:

"The fact that the president and first vice-president of the Academy, as well as other officers, actively and publicly advocate the State code, which is opposed to the by-laws of the Academy, excites alarm on the part of many Fellows of the Academy, and a fear that the standing of the Academy may, by the attitude of its prominent officers, be gravely compromised.

"Animated by this feeling, a number of Fellows of the Academy, who are in favor of its by-laws as they now exist, and who include four of the five living ex-presidents, prepared a set of resolutions, reaffirming the ethical portion of the by-laws, and I was selected to present these resolutions to the Academy at a regular stated meeting. We also notified those who were known to be in favor of the existing code of ethics to the Academy that resolutions would be introduced at the last stated meeting relative to the election of resident Fellows. Those acting in this matter conceived that it was not only their right, but their duty, in the existing condition of the Academy, to introduce these resolutions, and to ask those who were known to agree with them to be present.

"The resolutions, which you have already published, were accordingly introduced by myself, and were carried by a vote of two to one. By recognized parliamentary procedure, which involved no abridgment of discussion, they were made as binding upon the Academy as possible."

A CARD FROM THE EX-PRESIDENTS OF THE ACADEMY OF MEDICINE.—Four of the five living ex-presidents of the Academy have published the following card in reference to the action of the Academy upon the resolutions introduced by Dr. Austin Flint, Jr.:

"We, the undersigned, ex-presidents of the New York Academy of Medicine, desire to record our approval of the action taken by the Academy at the stated meeting of April 19, 1883, reaffirming the ethical clause of its by-laws, and our endorsement of the course pursued, by request of the council of the central organization of the New York State Medical Association, as presented at this meeting by Austin Flint, Jr.

WILLARD PARKER, M.D.,
President N. Y. Acad. Med., 1856.
JAMES ANDERSON, M.D.,
President N. Y. Acad. Med., 1861 to 1867.
AUSTIN FLINT, M.D.,
President N. Y. Acad. Med., 1373 to 1875.
SAMUEL S. PURPLE, M.D.,
President N. Y. Acad. Med., 1875 to 1879.

NEW YORK, April 30, 1883.

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SIR SPENCER WELLS.—Queen Victoria has signified her intention of conferring on Mr. Thomas Spencer Wells the honor of a baronetcy, in acknowledgment of "the distinguished services which he has rendered to the medical profession and to humanity." He was born in the year 1818, at St. Alban's, and was educated at Trinity College, Dublin. He gained his first medical experience in the Infirmary and School of Medicine, at Leeds, and subsequently studied in the Anatomical School, at Dublin, and at St. Thomas' Hospital. Having become an assistant surgeon in the Navy, he saw some active service, both afloat and ashore, before and during the Crimean war; and he was sent out in 1854–55, under the auspices of Mr. Sidney Herbert, as Chief Surgeon at Smyrna, and at Rankei on the Dardanelles. Returning to England at the close of the Russian War, he devoted himself to the study of that branch of professional science with which his name is associated, namely, ovariotomy, and connected himself with the Samaritan Hospital for Women. He is not only President of the College of Surgeons (in which capacity he delivered the Hunterian Oration last year), but a Fellow of the Royal Medical and Chirurgical Society, and Surgeon to Her Majesty's Household, and at the third centenary of the University of Leyden, he had conferred upon him the almost unique degree of an honorary M.D. He is the author of several important surgical works, especially on those improvements in operative surgery to which he has specially devoted himself.

SIR JAMES PAGET.—At a recent meeting of the Convocation of the University of London, SIR JAMES PAGET, was elected Vice-Chancellor of the University, to succeed the late Sir George Jessel.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending April 28, 1883, indicate that cholera morbus, erysipelas, typho-malarial fever, and rheumatism have increased, and that diphtheria, intermittent fever, and pneumonia, have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 28, and since, at ten places, scarlet fever at eighteen places, and measles at twenty-two places.

THE SANITARY CONVENTION AT REED CITY, MICHIGAN, under the auspices of the Michigan State Board of Health, was held April 26 and 27, 1883, and was a very successful one, being fairly attended by the citizens of the place, by health officers of townships, cities, and villages in the surrounding countries, and by sanitarians from other parts of the State.

CEREBRO-SPINAL MENINGITIS IN CANADA.—The *Provincial Health Bulletin* for the week which ended April 28th, notes, with some dismay, the appearance of this disease in a sparsely settled district which forms the eastern shore of Georgian Bay, where it prevails to such an extent as to place it amongst the six prominent diseases. "It is to be fervently hoped that cerebro-spinal meningitis, widely epidemic in 1873, is not reappearing after a decade of quiescence. Further reports concerning it will be anxiously awaited."

ONTARIO BOARD OF HEALTH.—The first annual report of this board has just been issued by the Ontario Legislature, and contains many interesting details concerning the work of the past year; considerable progress has been made in the collection of statistics of prevalent diseases, and the weekly health bulletin, in the form of a map, has done much to interest the profession, and the public in these important questions of sanitation. Means have been taken to disseminate sanitary information partly by circulars and pamphlets, by public lectures, and by a health convention, which met at St. Thomas. Several important outbreaks of malaria, and typhoid fever, have been satisfactorily investigated. There are several interesting reports in the appendix, particularly those of Dr. Covernton, as commissioner to obtain sanitary information in Great Britian, and as delegate to the International Sanitary Congress at Geneva. Two admirable lectures, by the Secretary, Dr. Bryce, conclude a volume which gives ample evidence of the value to a community of a well-organized health board.

OBITUARY RECORD.—DR. ARCHIBALD S. TODD, of Wheeling, W. Va., recently died at an advanced age. He was a member of the American Medical Association, and had been engaged in the practice of medicine for almost sixty years.

NOTES AND QUERIES.

CORRIGENDA.

IN our issue of April 21. 1883, under the department of "Medical Progress," Jansen's article on "Anthropometrical Study of Fitness for Military Service," p. 385, 5, for "weight by half measure of height," read, "weight for each centimetre of height."

On page 515 in our last issue (May 5, 1883), it is stated that DR. H. P. C. WILLIAMS read a paper before the *Medical and Chirurgical Faculty of Maryland* on "Malarial Fever in Puerperal Women." It should have read, DR. P. C. WILLIAMS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 30 TO MAY 7, 1883.

BAILY, JOSEPH C., *Major and Surgeon.*—To be relieved from duty in the Department of California, and assigned to duty in the Department of Texas.—*Par. 12, S. O. 102, A. G. O., May* 3, 1883.

BIRST, VICTOR, *First Lieutenant and Assistant Surgeon.*—To be relieved from duty in the Department of the Missouri, and assigned to duty in the Department of Dakota.—*Par. 13, S. O. 102, A. G. O., May* 3, 1883.

BYRNE, CHAS. B, *Captain and Assistant Surgeon.*—To be relieved from duty in the Department of the South, and assigned to duty in the Department of the Missouri.—*Par. 12, S. O. 102, A. G. O., May* 3, 1883.

CRAMPTON, LOUIS W., *Captain and Assistant Surgeon.*—Now awaiting orders, to proceed without delay to Fort Wayne, Mich., and report to the Commanding Officer for duty at that post.—*Par. 2, S. O. 73, Department of the East, April* 30, 1883.

PAULDING, HOLMES O., *Captain and Assistant Surgeon.*—To be relieved from duty at Fort Sidney, Nebraska, and assigned to duty at Fort Douglas, Utah.—*Par. 1, S. O. 42, Department of the Platte, April* 25, 1883.

PERLEY, HARRY O., *Captain and Assistant Surgeon.*—To be relieved from duty in the Department of the East, and assigned to duty in the Department of Dakota.—*Par. 14, S. O. 102, A. G. O., May* 3, 1883.

SPENCER, WM. G., *Captain and Assistant Surgeon.*—Now awaiting orders, assigned to duty in the Department of the East.—*Par. 12, S. O. 102, A. G. O., May* 3, 1883.

TILTON, HENRY R., *Major and Surgeon.*—To be relieved from duty in the Department of the Missouri, and assigned to duty in the Department of the East.—*Par. 13, S. O. 102, A. G. O., May* 3, 1883.

WORTHINGTON, JAS. C., *Captain and Assistant Surgeon.*—To be relieved from duty in the Department of the East, and assigned to duty in the Department of the Missouri.—*Par. 14, S. O. 102, A. G. O., May* 3, 1883.

MACAULEY, CARTER N. B., *First Lieutenant and Assistant Surgeon.*—To be relieved from duty in the Department of the East, and assigned to duty in the Department of Dakota.—*Par. 12, S. O. 102, A. G. O., May* 3, 1883.

STRONG, NORTON, *First Lieutenant and Assistant Surgeon.*—Upon expiration of leave of absence, to be assigned to duty at Fort Thornburgh, Utah.—*Par. 2, S. O. 42, Department of the Platte, April* 25, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, MAY 19, 1883. NO. 20.

ORIGINAL LECTURES.

ON THE TREATMENT OF NÆVUS MATERNUS.

Abstract of a Clinical Lecture, delivered at the New York Post-Graduate Medical School.

BY JAMES L. LITTLE, M.D.,

PROFESSOR IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL, ETC.

GENTLEMEN: The patient I now present to you is about six months old, and has a small vascular tumor on the left side of the forehead. It is, as you see, of about the size of a hickory-nut. Its summit is of a bright-red color, while the outer margins of the tumor seem to be covered with healthy skin. On making pressure upon it with my finger, the swelling almost entirely disappears; and upon removing the pressure, it slowly assumes its former size. This tumor is what is known as a nævus. It is also known under the names of aneurism by anastomosis, or erectile tumor, or angioma. It is a disease of the capillaries. The mass of the tumor is made up of capillary vessels freely connecting with one another. The form here presented is of the cutaneous variety. Upon an examination of the abdomen of the child, we find another one of nearly the same character. It does not seem to be as deeply situated, however, for the integument does not form any portion of its covering. It is flatter than the one upon the face and somewhat larger. The surface presents a whitish appearance in several places, as if cicatrization was taking place. These tumors may occur upon any part of the body. They are congenital, and are frequently called mother's marks. When first noticed they are generally very small, but gradually become larger. In a certain number of cases they seem to disappear spontaneously. The one on the abdomen of the child seems to be undergoing this process of cure, the whitish spots on its surface being indicative of a change. The one on the forehead, however, the mother tells us, is rapidly becoming larger.

I have met with a large number of examples of this disease, and I have never failed to cure the cutaneous variety by the introduction of heated needles into the base of the tumor. If the tumor be small, one operation is generally sufficient; in larger tumors several operations may be required before the cure is complete.

I will now proceed to operate upon this case. But first, as to the needles used. It has always been my practice to employ a shoemaker's awl, which is slightly curved at the point and flattened. Such an instrument is much larger than the needles that are generally used for this purpose by surgeons. My assistant holding the child, I place the head between my knees, face upwards; in this way I have perfect control of its head, and am now ready to proceed. Another of my assistants holds the alcohol lamp at my right side, in which I heat the end of the awl to redness, and then plunge it into the tumor. The manner of introducing the awl is of importance. It should be thrust into the base of the tumor and towards the centre, not into the top. Holding it here a moment, I withdraw it and reheat it preparatory to a second introduction. There is scarcely any bleeding. This procedure is repeated until the entire circuit of the base of the tumor is completed. Please observe that I plunge the awl in at the juncture of the skin with the tumor and push it downwards and inwards. If punctures are made only in the top of the tumor, very little is gained by the operation. You should strive to destroy the vessels at its base. Having completed the circuit, I now make a few punctures in the most prominent part, over the surface of the nævus. The swelling has now become very much reduced in size. One of the punctures which I have just now made into the surface of the tumor is followed by a free flow of blood almost equal to an arterial jet. A second introduction of the needle fails to arrest the hemorrhage. Under such circumstances, you will find that the best method of arresting the bleeding, will be to make firm pressure over the bleeding point with a sponge for a few minutes. This I have never known to fail in stopping it.

The needle is introduced at a black heat; that is to say, although it is heated to redness in the flame of the lamp, before you reach the tumor the redness has disappeared. Although the child cried during the operation, it did not seem to be suffering very much, and now, that I have completed the operation, the patient has ceased crying. No special dressing is required. I generally advise, however, that the part be covered with a light compress, wet with cold water during the first night.

Two weeks later the patient was again brought to the clinic, when it was observed that a decided change for the better had taken place, the tumor having shrunk to less than one-third its former size. It was much flatter, and the redness over its surface had almost entirely disappeared, except at one or two points. Two or three additional punctures with the hot awl were made, it being introduced as before into the base of the vascular prominences rather than into their summits. It was predicted that the second operation would be all that was necessary to effect a cure, and that only a very slight cicatrix would remain.

There are two other ways of heating needles, namely, by means of galvano-cautery and Paquelin's thermo-cautery. The points coming with these apparatuses, however, are larger than the awl I have used, and the apparatuses themselves are clumsier and much more expensive than the simple alcohol lamp and shoemaker's awl.

ORIGINAL ARTICLES.

PLEURITIS, CIRCUMSCRIBED EMPYEMA, PLEURO-PULMONARY FISTULA; RECOVERY.

BY RICHARD MCSHERRY, M.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, UNIVERSITY OF MARYLAND.

ON the first day of May last, I was called to see a gentleman, a retired physician, verging on three-score years, whose prostration and general appearance indicated alarming illness. He informed me that he had been ill for some weeks; had taken advice from several physicians; and that he was then but just returned from the country, where he had gone with some indefinite hope of recuperation. His disease, he said, was all in his stomach; he was

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perishing for want of food. Nothing was acceptable; nothing could be retained.

He had some fever; pulse and temperature ranging at the time at about 100 in frequency, and 100° F., respectively. He had a foul tongue; a fetid breath; a somewhat teasing cough, which added not a little to his gastric distress, and inclination to vomit. He said he had suffered greatly with pleurodynia throughout his illness, but that that pain was now giving him but little trouble.

As he lay helpless and reclining, I examined the front and sides of the chest; found the respiratory act very feeble, with some mucous râles; but percussion sounds clear, as far as I could then carry my examination, over front and sides of the chest. I took his word for the pleurodynia; but when, after a day or two, he told me a respectable physician had proposed paracentesis by aspiration, I inferred, of course, that there had been something more than pleurodynia. So far as my examination went, if there had been any considerable amount of pleuritic exudation, it must have been entirely, or at least largely, absorbed.

As the sequel will show, pleurodynia was quite a misnomer.

My first attention was necessarily given to the state of the stomach, that organ which the Knight of La Mancha, before Broussais, declared to be the laboratory in which the health of the whole body is tempered.

Whenever fetor of the breath is observed, the chlorates as a rule seem to be appropriate. I therefore gave moderate doses of chlorate of potash, combined with biborate of soda, and tincture of eucalyptus. I also directed cantharidal collodion to be applied over the stomach. Nourishment was only allowed to be offered in the blandest forms and in the smallest quantities, as in William Hunter's famous case.

As the stomach became somewhat tolerant, but the fetor continuing, a combination was given of eucalyptus, listerine, glycerine, and creasote. To these antiseptic agents, quinine and hyoscyamus were soon added for tonic and tranquillizing influences. For some aggravation of pain in the left side, a small blister was applied, and, for night-sweats, oxide of zinc and extract of belladonna were duly administered.

In the mean time, after some days of attention, the patient was enabled to sit up, by being supported, and I had an opportunity of examining the chest upon its posterior aspect.

The revelation gave something very different from pleurodynia. There was dulness, or rather flatness, under spine of the left scapula, radiating from two to three inches around the centre. Then some suspicious clicks were heard; and while the patient was sitting nearly erect, the percussion and respiration sounds were clear to base of lungs anteriorly. There was clearly no flow of fluid, seeking a level over the floor of the chest cavity.

The cough was then bringing up offensive sputa in limited quantities, when there came one morning a large gush of very fetid, dark, muco-purulent matter, the odor of which diffused itself beyond the rooms occupied by the patient.

Thereafter, the physical signs of a large cavity were complete. These were pectoriloquy, amphoric respiration, gurgling, and *inter alia*, as first noticed by my son, Dr. H. Clinton McSherry, occasional but unmistakable metallic tinkling.

The flatness, or effusion, never passed certain definite limits, so that it was clear we had a great abscess, or limited empyema to deal with. The disgorging went on freely after this, and alteratives, astringents, and tonics, always with antiseptic agents, were sedulously continued. Among the remedies, may be enumerated a combination of iodide of potash, muriate of ammonia, and sarsaparilla; sometimes at night, aromatic sulphuric acid, oil of tar, and glycerine, and occasionally terebinthinates and copaiba in capsules, tincture of iron and gentian, and for a time a combination of sulphate of quinine and hydrobromic acid.

℞.—Quiniæ sulph. . . . . ℈j.
Acid. hydrobrom. . . . . ʒj.
Elix. simpl. . . . . ʒvij.
Aq. menthæ, ... ʒj.—M.
Dose—Two drachms in tar water *ter in die*.

As convalescence advanced, cod-liver oil and lime water were directed for persistent use.

The patient was under my care from the first of May until the twenty-second of June, when he went, rather prematurely, I feared, to *Atlantic City*.

On the fourth of July I had the pleasure of receiving a note from him, announcing continued convalescence—gaining in strength, and in flesh, he said, nearly a pound a day. He had a good appetite. "I have no more cough, and the soreness in the left lung is scarcely perceptible, my sleep is undisturbed and natural, and I anticipate returning in a few weeks fully able to attend to business."

His anticipations were realized. I called to see him about a month ago, and had only an opportunity of making a hasty examination into his condition. Respiration and pulse were about natural; and I could detect only a little evidence of a mucous click occasionally over the original seat of disease. He was attending to his usual occupation (being now in the drug business), and expressed himself as in the enjoyment of perfectly good health. [I may here interpose that at a more recent visit the most marked physical sign was a pronounced *vocal fremitus* over the site of the original lesion.]

Let us take a view of the probable morbid anatomy of the case.

"Sometimes (in pleurisy) fluid occurs in the form of a circumscribed collection of pus between the pulmonary and costal, or diaphragmatic pleura, entirely shut in by adhesions. Such a purulent pleurisy, or empyema, is either fatal or may be absorbed; or may perforate the chest-wall, and escape externally; or may perforate the lung, and escape through a bronchus; or may perforate the diaphragm and find its way downward." (Delafield, *Hand-book of Post-mortem Examinations*.)

Orth gives more detail in regard to such cases.

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"The pulmonary pleura," he says, "is at times the seat of *circumscribed necrosis*, as indicated by a yellowish-gray discoloration, friability, and softness; the lung-tissue beneath such spots is generally ulcerated or gangrenous. It is an interesting fact that these necrotic portions of the pleura always retain their smooth and reflecting surface, *i. e.*, show no signs of inflammation, although the whole surrounding membrane may be covered with a fibrinous deposit. Perforation may result from this process, the hole being usually from three to five millimetres in diameter, and a communication is thus established with the pulmonary lesion, which is usually a cavity. Certain peculiar changes in the appearance of the surface of the lungs are to be explained by the arrangement of the superficial lymphatic vessels, which, as is well known, lie between the vessels and form a supplemental network. These lymphatic vessels are subject to inflammatory changes of an acute as well as of a chronic nature; the latter give rise to a thickening of the walls, especially at the points of anastomosis (pseudo-tubercle), and to a dilatation of the vessels; the presence of puriform material within the vessels (purulent pleural lymphangitis) is due to an acute process." (Orth's *Diagnosis in Pathological Anatomy*. Translated by Drs. Shattuck, Sabine, and Fitz, of Boston.)

There may have been, perchance, as this author recognizes, embolic infarction (embolic pneumonia), producing an abscess at the periphery of the lung, the emboli being, or becoming, septic.

In septic suppuration, the cells are readily destroyed, and the fluid when examined under the microscope is found to contain little more than broken-down cells, detritus, and often large masses of micrococci. Or we may have a localized fibrinous pneumonia, associated with a fibrinous pleurisy, indicated, as Orth says, by the old term "pleuro-pneumonia," which term he thinks objectionable, as both catarrhal and cheesy pneumonia are very often associated with pleurisy, and might hence be included under the term. Cases, he says, also sometimes occur in which this order of things is reversed, and a primary pleurisy gives rise to fibrinous pneumonia in the adjoining tissue.

It would be difficult, if not impossible, to determine from the condition of my patient at the time of his coming into my hands, with a very vague history of the primary disease, whether the lesion passed from the lung to the pleura, or *vice versâ;* or whether there was embolic infarction; but all the indications pointed to circumscribed necrosis, while a circle of fibrinous deposit enclosed the broken-down vesicles and septic detritus, within limits not difficult of definition.

The Question of Operation.—A physician had proposed paracentesis some time before the patient came under my care; but the indications, at least when I took charge, were not clearly in favor of operation. There was no pointing, no evidence of approach to the surface; and, in fact, the obvious centre of disease was under the scapula.

That the pleuritic exudation was circumscribed, was clear from the fact that over the entire front of the chest, from apex to base, the percussion sounds were clear, whether the patient was lying on his back, or was in the erect position. There was no general empyema.

Dr. Bull, of Christiana, in commenting on artificial puncture of a pulmonary fistula, goes on to say, that the pathological changes in the lung which may indicate such an operation, are cavities of all kinds, such as limited gangrenous foci, pulmonary abscesses, phthisical and bronchiectacic cavities. The first two may be completely healed if the loss of substance be not too great; and if the remaining parts of the lung be sound, or capable of healing. With large cavities, a permanent fistula cannot perhaps always be avoided. Life may be preserved for a long time in cases of considerable gangrene and large pulmonary abscesses in many cases, when a permanent cavity is periodically emptied by coughing. It must, however, be distinctly better for these patients that the cavity should have an opening of discharge through the chest-wall, and that the passage should remain free; the constantly threatening decomposition of the contents of the cavity can thus best be obviated. Both gangrene and abscess of the lung may indeed heal without operation, but an operation should be performed when possible. Delay reduces the patient's strength, and favors the extension of the disease.

While conceding the propriety of operative procedures generally in all forms of empyema, I doubt if it would have been advisable in the case I am reporting. At all events, I was willing to await *empyema necessitatis*, and in the mean time relief came by disgorgement by way of the bronchial tubes.

In such a case as the following, recorded by Radek, a Pole, and quoted by Dr. Bull, the operation appeared to be eminently proper, and yet we cannot be sure that it did not hasten the fatal result.

A patient, æt. 44, entered hospital, suffering severely from dyspnœa. Two large communicating abscesses were found in the neighborhood of the right nipple. When pressure was made on them, the dyspnœa was increased, and pus was expectorated. The case was, however, believed to be one of empyema, communicating with a bronchus. An incision was made, and a large quantity of pus escaped; the cavity was washed out with carbolic acid. Relief followed for twelve hours; but after this acute pleuritis of the left side set in, and the patient soon died. The necropsy showed that there was no empyema, but a large abscess of the lung. (*Med. Gazette*, from *London Med. Record.*)

The whole question of tapping or making incisions into the chest for pleuritic, serous, or purulent exudation is one of very serious import. All physicians have not been rewarded with Dr. Bowditch's great success. The reader who would like to see the treatment of empyema, with the *dangers of thoracentesis and of injecting the pleural cavity*, fairly presented, may be referred to a capital article on the subject from the pen of Dr. Wm. C. Dabney, of Charlottesville, Virginia, in the *American Journ. of the Med. Sciences*, for October, 1882.

The dangers, indeed, are not great comparatively, and probably would be much less if carbolic

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acid were entirely substituted by safer agents, used by way of injection.

As there are some dangers, the propriety of temporizing must always be considered. A gentleman from a neighboring county came under my treatment on the ninth of October last, with malarial fever. There was no history of pleurisy, but upon examining the chest, I found a large pleuritic effusion on the left side of the chest. He then remembered that acute pain in the same side had existed with chills and fevers, and anorexia and other preponderating evidences of malaria, which had caused the pleurisy to be overlooked. He had fever of the remittent form when he came into my hands. He had taken quinine freely up to that time. I continued this agent with effervescent draughts and saline aperients. Insomnia was troublesome, and was much relieved by the use of chloral and bromide of potash at night. The remittent soon became a tertian intermittent. Meantime, a fly-blister was applied to the affected side of the chest, but with general improvement there was no reduction of the pleuritic effusion. The urine was scant and high colored, but was free from albumen. Cream of tartar and cubebs were ordered as diuretics, and a succession of blisters, but no immediate impression was made. Two days after application of last blister, I took the aspirator to the bedside, but upon examining the chest preparatory to operation, I found so decided a diminution that I determined to postpone operation and continue medical treatment. Under this the patient continued to improve.

A very accurate investigator says that large blisters, like great surface burns, which are competent to produce ulceration of the duodenum, or even acute pneumonia or pleuritis, may have the effect of burns when allowed to draw thoroughly. The end organs of the sensory nerves in the skin are injured, he says, and the trophic centre is depressed. "Blisters, large, and long in action, are therefore proper only when the functions of the trophic centre are to be lowered. To this might be added, also, when the vaso-motor system is to be depressed. Conversely, transient irritation causes reflex contraction of the vaso-motor fibres, and excites the trophic system to acts that involve function only." (Prof. Bartholow, on "The Trophic System in Pathological Processes," THE MEDICAL NEWS, June 24, 1882.)

This passage is very suggestive. By my process of blistering, in the efficacy of which I have great confidence, the epispastic is removed when the skin is reddened, and the drawing is completed under warm fomentations or poultices. In this mode of use there is little danger of damage to the trophic centre, while stimulation and derivation are satisfactorily accomplished.

My patient passed from under my hands on the 10th of November, fairly convalescent, and with little remains of exudation. When this first occurred, paracentesis would certainly have been a justifiable practice to save the lung from prolonged compression; nevertheless, he improved, if not *cito*, at least, *tuto ac jucunde*.

I may here make a passing reference to another case of pleurisy, with a less satisfactory result. I was called in consultation by a physician in large practice to see an elderly man, with a large pleuritic effusion; and by and with consent of the practitioner, I aspirated, and drew off a large quantity of serum, of good appearance, which gave great relief to the sufferer. Some time thereafter, I was called again, and again aspirated. Upon this occasion the serum was clouded with pus. Again and again the aspiration was repeated, and upon each occasion there was an increase of pus. I suggested incision and drainage, but my friend did not approve. The patient removed to the country, and I did not see him for some weeks, when I was called to pay him another visit, and drew off a large quantity of almost pure pus, which was in no wise offensive. I again urged upon the doctor the propriety of incision, but he disagreed with me, and I saw the case no more. The patient was then running down rapidly. A large portion of the pleura had become converted into a great pyogenetic membrane.

Is the increase of pus-cells after paracentesis due to the aspiration? This is doubtful. It is usually supposed to be so; but, as Dr. Loomis remarks, "This is not a legitimate inference, for the increase in the cell development is the natural result of the morbid processes which were in operation at the first tapping." (*Lectures on Diseases of the Respiratory Organs, etc.*)

Not a great while after my last visit, I saw the death of the patient announced in the papers. I thought a free evacuation would have given him a better chance for life; or at least for improvement. Drawing off purulent matter from the pleura, and drainage and injection, are not yet among the certainties of therapeutic resources; but by all the laws of rational probabilities, such agencies, in such cases, must now be considered imperatively demanded.

Thus, it appears in the last two cases, that one recovered without operation, and the other died—probably—for want of a sufficient one.

BALTIMORE, March 8, 1883.

SARCOMA OF THE SPERMATIC CORD, WITH HERNIA OF THE VERMIFORM APPENDIX.

BY GEORGE W. MASON, M.D.,
OF BLOOMINGTON, ILLINOIS.

THE following case is reported because of the rarity of hernia of the vermiform appendix, and the still greater rarity of the complication of that condition with a sarcoma arising from the spermatic cord and surrounding the hernia.

P. B., colored; laborer; æt. about forty years, and unmarried. Says his health has always been good, except the present trouble. His family history, so far as is known, is good; there being no evidence of the existence of cancer, tumor, or any hereditary disease in the family.

While in the army he had a direct inguinal hernia, which was reduced, and for which he subsequently wore a truss. At times, since then, he has

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had a hernial protrusion which he has always reduced himself.

The first symptoms of the present trouble appeared about two years ago, when he felt a soreness in the right groin. Later there occurred an aching pain in the right testicle. He ascribed these symptoms to partial descent of the hernia at times, and to the pressure of a poorly fitting truss of his own manufacture. In December, 1881, he first observed a tumor growing at the place where the spermatic cord emerges from the inguinal canal at the external abdominal ring. This was hard and at times quite tender.

A short time previous to his coming under my observation, he had consulted several physicians, under the belief that his hernia had "come down" so that he could not reduce it. He said that every means, except the knife, was used to effect its reduction. Forcible taxis was practised several hours, causing him great suffering. All efforts for its reduction proving ineffectual, he received no further attendance for five or six days.

On June 1, 1882, I was called, and found a tumor of considerable size occupying the lower part of the right inguinal region, and extending along the spermatic cord to the testicle. The testicle was movable upon the lower end of the tumor, which was hard, heated, and tense, showing signs of inflammation. There was no impulse communicated to it by coughing, nor any change in its size on muscular exertion or change of position. It could not be forced into the external ring to any perceptible extent. There was no gurgling, tympanitis, or fluctuation. The bowels had not moved for four days, but there was no vomiting. There was anorexia, and the tongue was furred and somewhat dry. The pulse was 100, and the temperature a little above normal.

If the tumor contained intestine, I concluded that a constriction must exist at the neck of the sac. For diagnosis, I administered a cathartic. The next day the patient was feeling much better; his bowels had been moved freely without any unpleasant symptoms in the tumor or elsewhere. The tumor was a little softer and showed signs of fluctuation. The treatment was an anodyne and flaxseed poultice to the tumor.

June 5.—A free incision was made, from which about four ounces of pus were discharged, leaving a cup-shaped tumor. The treatment was quinine and the tincture of the chloride of iron, with an anodyne when necessary. The poultice was continued. A discharge was kept up for about two weeks, at the end of which time there still remained an indurated tumor the size of a hen's egg. All further treatment failed to reduce it in size. Otherwise, the patient felt quite well. A suitable truss was adjusted in place of the one previously worn.

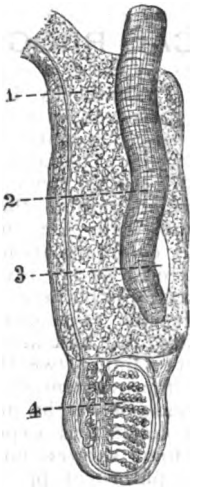
September 9.—The tumor was hard, firm, and much enlarged; the skin over it was quite tense. The patient was suffering intensely and wanted it "cut out." An opiate and a poultice were prescribed.

17th.—The tumor was very painful. The pulse and temperature were nearly normal. There was no evidence of inflammation. Upon consultation, and at the urgent request of the patient, it was decided that it should be removed at once.

On the same day, assisted by my colleague Dr. Lee Smith, I operated as follows:

The patient being etherized, an incision about three inches in length was made, commencing at about the point of exit of the spermatic cord from the external abdominal ring, and extending parallel to the cord down to the scrotum. The integument and fascia were carefully dissected from the tumor and testicle. At the hernial ring the convexity of a knuckle of intestine was seen presenting itself. This was readily pushed into the abdominal cavity. A round prolongation of the tumor extended through the hernial ring, which appeared like a pedicle, with some resemblance to intestine. It being firmly adherent to the mass, and there being no return portion to it, it was decided not to be intestine proper, but possibly the vermiform appendix. It was accordingly secured with a carbolized-silk ligature and divided, and the ligated end dropped into the abdominal cavity. A stout ligature was placed around the spermatic vessels and cord, and the growth severed high up, so as to include as much of the diseased structure as possible. A portion of the redundant scrotum was excised.

The tumor, as removed, including the testicle, was four and one-half inches long by one and three-



1. Body of tumor. 2. Vermiform appendix. 3. Sac containing pus. 4. Testicle.

fourths inch thick. It was somewhat kidney-shaped. Along its posterior and external portion extended the spermatic vessels and cord. Anterior to the middle was the vermiform appendix, about four inches of which were removed, and which extended to within an inch of the testicle. A small sac of pus was found anterior to and near the end of the vermiform appendix. Elsewhere it was adherent to the body of the tumor. Numerous bloodvessels existed throughout the growth.

Microscopic examination showed it to be a fibro-sarcoma, the outer portions being fibrous. The inner portion of body of the tumor was made up of

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large spindle and stellate nucleated cells, contained in a homogeneous intercellular substance. Near the fibrous portion, this intercellular substance was in the form of fibrillæ, separating the individual elongated spindle-cells. The accompanying diagram shows the relation of the parts of the tumor.

The edges of the wound were united with carbolized-silk sutures and dressed with absorbent cotton, saturated with carbolized oil. The patient rallied without great shock, but considering his squalid abode and unhygienic surroundings, the prognosis was not good. Quinine was given freely, and the bowels were kept constipated for eight days with tincture of opium. At the end of that time they were moved by an enema. At no time after the operation was the pulse above 108, or the temperature above 101°. There was considerable suppuration around the ligature to the cord, which did not separate until the fourteenth day.

October 6.—The patient was walking around the house and yard. Pulse and temperature were normal. The wound was suppurating a little, but nearly healed.

At the present time the patient is free from pain, which was almost constant before the operation. The hernial opening has been completely closed by the cicatrization. There is some induration and enlargement in the groin, indicating that the growth will probably recur at that point. Otherwise he is in good health.

MEDICAL PROGRESS.

TREATMENT OF PHTHISIS BY IODOFORM.—In the *Brit. Med. Journ.*, 1882, vol. ii. p. 169, DR. DRESCHFELD reported his first observations in the treatment of phthisis by iodoform. The favorable opinion then formed has been still further strengthened. Of sixty-four cases of confirmed phthisis, thirty-four had been under treatment sufficiently long to be available for the purposes of this communication. Of these thirty-four cases, four were in so far advanced a condition that the iodoform was only borne in the form of inhalation, but gave no results; two cases were complicated with amyloid disease, and here also the iodoform was useless. Of the remaining twenty-eight cases, ten showed either no improvement or only a temporary improvement (increase of weight, improvement of appetite, decrease of cough and expectoration); while the physical symptoms showed no alteration at first, but afterwards the phthisical process gradually advanced, and associated again with loss of flesh, night-sweats, etc. Of the remaining eighteen cases, some showed slight but steady improvement, broken only temporarily by a fresh cold or some complication, such as gastric catarrh, pleurisy, etc.; whilst in six cases the improvement was most marked and beyond all expectation, the increase in weight amounting in one case to fourteen pounds, in another to ten pounds, and in a third to eight pounds, in one month. The physical symptoms also improved; the sputa, however, continued to contain tubercle-bacilli. The iodoform treatment was also tried in six cases of incipient phthisis. Of these, two had only been under treatment a very short time. Of the four remaining cases, two showed no improvement, one was at once benefited; cough and expectoration entirely ceased, the apex-catarrh disappeared, and the patient felt now perfectly well. In the second case the treatment was equally successful—only, however, after having been continued for a longer time. There being an almost entire cessation of cough, it was difficult to obtain any sputa; one specimen, however, was obtained, and this was found free from bacilli, whilst before they were found abundantly. Two cases of laryngeal phthisis, treated both by inhalation, and also locally by the application of iodoform powder to the ulcers, gave satisfactory results; the ulcers cleared and became smaller, and the general condition improved. The iodoform was given in the form of pills (one grain of iodoform, two grains of croton-chloral, one minim of creasote) and in the form of inhalation (twenty grains of iodoform, twenty minims of oil of eucalyptus or ten minims of creasote, and half an ounce each of rectified spirit and of ether). The inhaler used was one devised by Dr. Roberts, consisting simply of horsehair matting, to the inner side of which was attached some flannel or cotton-wool, and on this the inhalation-mixture was dropped. The cost of the inhaler was about threepence. Where the pills were badly borne (especially in women), the iodoform was added to cod-liver oil. In very young children, iodoform inunction, made with olive oil or vaseline, was to be recommended, while older children seemed to take iodoform, either as powders or in small pills, very well. The good effects of iodoform seemed to consist in the following: 1. Increase of weight; 2. Increase of appetite; 3. Diminution of cough and expectoration; 4. Diminution or even total cessation of night-sweats; 5. The temperature was often a little lowered. No symptoms of iodoform intoxication had ever been seen. Several medical men, who had tried the iodoform treatment, had also obtained very satisfactory results.—*Brit. Med. Journ.*, April 28, 1883.

IDIOPATHIC SPASM OF THE TONGUE.—DOCHMANN reports (*St. Petersburger Med. Wochensch.*) a case of this affection in addition to the single case reported by Erb, and the two by Berger. A young girl, of nine years, had rhythmical spasms of the tongue at intervals of eight or ten minutes. During the spasm the tongue was not painful, but so much fatigued that when it was voluntarily stretched out it remained fixed between the teeth for a long time. It felt hard, was not convulsed, but sometimes, towards the end of the attack, would be bent over, as though the patient wished to lick her upper lip; then the tongue would be drawn back into the cavity of the mouth, with or without the will of the patient. The whole attack lasted eight to fifteen seconds; the longer, the greater the intervals between the paroxysms. During the paroxysms the tongue was continually struck against the teeth, causing much pain.—*Centralb. für Chirurg.*, April 21, 1883.

PILOCARPIN AND HOMATROPIN.—DR. FRONMULLER states (*St. Peters. Med. Wochensch.*) that after injecting gr. ⅓ of hydrochlorate of pilocarpin under the skin of a syphilitic patient, severe symptoms of poisoning appeared within ten minutes. Perspiration and salivation were profuse, and the pulse rose to 120. All these symptoms disappeared within two minutes after the injection of gr. ½ of hydrobromate of homatropin, the pulse falling to 80. In two more cases the same antidotal effects were noticed. Dr. Fronmüller observes that it is very fortunate that we now know a ready and rapid remedy for the very alarming results that not rarely follow the employment of pilocarpin.—*London Medical Record*, April, 1883.

NEPHRECTOMY. RUPTURE OF THE VENA CAVA WITHOUT HEMORRHAGE.—LUCKE reports a case (*Deutsche Zeit. f. Chir.*, tome xv. fasc. 5 and 6, p. 518) of a man, æt. 60, in whom sarcoma of the kidney was diagnosticated. Laparotomy was performed; the capsule of

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the tumor opened, and it was enucleated. While the tumor was being detached, it suddenly disappeared from the hands of the operator, and at the same time a gush of black blood escaped into the abdominal cavity. Compression with sponges and gauze arrested the hemorrhage, and the wound was closed. On the second day, symptoms of uræmia appeared; small pulse, vomiting, and diarrhœa; absolute anuria. Death, from coma, took place on the fourth day. At the autopsy, made by von Recklinghausen, there were found primitive carcinoma of the kidney, carcinomatous thrombosis of the renal veins, rupture of principal renal vein, and of the vena cava, closed by a large thrombus. The low pressure of the blood in the vena cava made the formation of a thrombus by simple compression possible. The other kidney had undergone sclero-cystic degeneration, which accounted for the sudden appearance of uræmia.—*Revue de Chirurgie*, April, 1883.

TREPHINING IN SPINAL CARIES.—DR. BANHAM and MR. ARTHUR JACKSON report this case: A healthy-looking boy, æt. 12, suffering from paraplegia, came under their care at the Sheffield General Infirmary, April 28, 1882. There appeared to be no strumous history. Was healthy up to January, 1882, when he found that his left leg dragged in walking; this was soon followed by dragging of the right. He had been struck in the back, about three years previously, with half a brick. At the time of admission, he could not use his legs at all; they were wasted and flaccid; sensation normal; exalted faradic contractility and sensibility and increased tendon reflex. There was no swelling or tenderness in the back; hot and cold sponges did not cause pain. His motions were passed normally at first, except that micturition was difficult. For the next two months, the symptoms grew worse, until he lost control over his sphincters, and was unable to turn himself in bed. The legs became drawn up in a state of tonic contraction. Faradism was painful, but galvanism was not felt. Sensibility was much diminished. There was exaggerated tendon reflex on both sides, and ankle clonus, both tests giving pain. There was no spasm, and no defined line of anæsthesia. The special senses were unaffected.

About two or three months after admission, a prominence was discovered in his back, corresponding to the lower dorsal spines. As his state became progressively worse, drugs and galvanism having no effect, Mr. Jackson, to whom the case had been for some time transferred, determined to explore the spinal canal at the seat of curvature, and see if he could remove the pressure on the cord; this was thought to be due to some inflammatory deposit on the back of the bodies of the vertebræ, which, having caused erosion of the vertebral ligament, had collected outside the theca in the form of pus.

The operation was performed on December 14, 1882, with full antiseptic precautions. An incision three inches and a half long was made over the lower dorsal spines. The laminæ and spinous process of a vertebra (the ninth) were removed; and the dura mater was laid bare, but not opened. No pus was found, but the spinal cord rose to the opening made in the bone.

The day after the operation, the temperature reached 102° Fahr., but fell during the next two days to 100° Fahr., where it remained for three weeks, with slight nocturnal elevations; after that it was normal.

The wound was dressed for the first time on December 26th, twelve days after the operation, and the sutures were removed.

On January 10th, fifteen days after the last dressing, the wound was again examined, and was found healed.

A week after the operation, the boy was able, for the first time since his admission, to micturate properly, and when he desired; he had control over his sphincters, for which result alone the operation had been of great value. The painful tonic contractions of his leg and thigh-muscles had quite disappeared, and he was able to draw his knees up against his abdomen, and slightly move his toes. Faradic contractility was, however, much dimished, though sensibility remained. He could distinguish with accuracy the point pricked with a pin at any part over each leg. His sensations also to touch, pressure, and temperature were normal.—*Brit. Med. Journ.*, April 28, 1883.

MUSCULAR ATROPHY AFTER TYPHOID FEVER.—M. DEPRÈS reports a case of this affection, occurring during convalescence from typhoid fever, in a young man, æt. 20. The right shoulder was prominent, the whole trunk was bent forward, and the vertebral column described a curve with a convexity toward the left in the dorsal region. Almost all the muscles were more or less atrophied. The treatment consisted in—faradization every day, every two days at least; gymnastics and physiological support by a special corset. The electricity was applied principally to the muscles corresponding to the vertebral curvature, but was not limited to these. The gymnastic exercises consisted principally in trapeze swinging, so as to elevate the body by the arms. The patient had markedly improved after eight days of treatment.—*L'Union Médicale*, April 19, 1883.

COPPER AS AN ANTIDOTE TO EPIDEMIC DISEASES.—M. BURQ, after statistical research, thinks that there is almost absolute immunity to copper-workers in epidemics of cholera and typhoid fever. The statistics which he has collected seem to show that the storing-up of copper, in small amounts, in the animal economy constitutes an almost infallible protection.—*Gaz. Hebdom.*, April 27, 1883.

PHYSIOLOGICAL ACTION OF IODOFORM.—M. RUMMO presented to the Academie des Sciences, a note showing the results of his experimental studies on this subject. 1. *Circulation and Respiration.*—In the frog, iodoform produces a considerable slowing of the pulse, and the heart is arrested in diastole. The crochet which is normally produced at the summit of the vertical systolic line is absent; there is also noticed slight ascension of the scale, and a slightly longer duration of the ventricular diastole; also the slowness with which the diastolic relaxation takes place. Large doses cause accelerated respiration at first, then slowing, and finally cessation. Certain irregularities of respiration were also noted. 2. *Temperature.*—Medium doses cause an elevation of 1° or 2°. Very large doses produce a transitory elevation, then a fall of 4° or 5°, notwithstanding the tetanus. 3. *Nervous System.*—In frogs, local anæsthesia, general feebleness, diminution of nervous, muscular, and reflex excitability, finally, general rigidity continuing after section of the cord. Death takes place in a state of complete rigidity. In mammifers the general nervous troubles take place when iodoform is injected into the stomach or peritoneal cavity. Being very insoluble, when injected under the skin it only produces local anæsthesia and very slight general phenomena. 5. *Digestive Tract.*—Large doses produce nausea, vomiting, and dysenteric stools. If not fatal there is hebetude, marasmus, and all the more advanced phenomena of iodism. Iodoform is eliminated by the urine in the form of an iodide, iodate, and hydriodic acid. It is found in all the organs and fluids of the body, especially the vitreous humor. 5. *Antiseptic Action.*—Iodoform does not arrest

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the development of bacteria in the course of multiplication in putrid liquids, but a solution of it in spirits of turpentine kills bacteria in full proliferation.—*Gazette Hebdom.*, April 27, 1883.

TREATMENT OF FLOATING KIDNEY BY FIXATION.—DR. DAVID NEWMAN, of Glasgow, has performed, for the first time in Great Britain, the operation of nephrorraphy. The operation was performed in the following manner. The kidney was exposed by a vertical incision in the right loin, immediately external to the outer edge of the quadratus lumborum, and extending from the lowermost rib to the crest of the ilium; the capsule of the kidney was opened and stitched to the edges of the wound, and two catgut sutures were passed through the cortex of the kidney, the muscles, fascia, and skin, and secured externally by buttons. The patient suffered from severe symptoms, and was treated for several years without success; but, since the operation, the symptoms have entirely disappeared, and she has now almost recovered from the effects of the operation, which was performed three weeks ago.—*British Medical Journal*, April 28, 1883.

NEPHRECTOMY FOR SARCOMA OF THE LEFT KIDNEY.—HIGGUET reports (*Bull. de l'Acad. roy. de Belg.*, 1882, 3me série, t. xvi. p. 41) the case of a child of six years having an ovoid tumor, in the left hypochondriac region, as large as a small head, which had been growing for three and a half months. The tumor was but slightly painful on pressure, rather soft, dull, and without fluctuation; lateral displacement was very limited. No trouble in micturition, and no hæmaturia. Two months after the patient came under observation there was no change in the condition, except that the tumor had increased. Sarcoma of the left kidney was diagnosticated, and laparotomy was performed under antiseptics. The patient was well in thirty-six days. Microscopic examination showed that the tumor was an epitheliomatous adeno-sarcoma of the kidney.—*Revue de Chirurgie*, April, 1883.

EXTIRPATION OF THE THYROID GLAND.—PROF. KOCHER read a paper before the Twelfth Congress of the German Surgical Association on this subject. He has operated on 102 cases. He thinks it especially desirable to leave in place one of the connective-tissue envelopes of the tumor; by doing this, the removal of the tumor will be rendered more easy, and should suppuration occur, the product will be retained in the sac, and be more easily removed. All hemorrhage should be thoroughly checked, and the recurrent nerve must be especially guarded against accident. He does not think tracheotomy advisable: it increases the mortality, and with the exception of a small minority of cases in which there is danger of suffocation, it is of no particular advantage.

The degeneration of the tracheal rings, reported by many observers, he has never seen. Removal of the whole gland is, in his opinion, very unfavorable as to the ultimate results to the patient; for although retaining a healthy appearance, they are often attacked by a pernicious anæmia. The thyroid gland is, he thinks, a blood-forming organ, whose functions the spleen cannot perform.

In the discussion which followed, PROF. BARDELEBEN did not agree with Kocher as to the functions and necessity of the gland; he thought it more probable that the anæmia resulted from the goitre, and would have come on if it had not been removed. He had removed the thyroid gland and spleen from the same dog, and no such accident had resulted; the animal lived a number of years afterward (seven), and was accidentally killed.

PROF. MASS thought that the operation of extirpation of the thyroid for goitre was done too extensively; he thought that the majority of goitres would yield to an iodine treatment.

DR. WOLFLER, of Vienna, also read a paper upon the same subject. He called especial attention to the inconstant relations of the recurrent nerve to the inferior thyroid artery. In some cases, it was fastened between the artery and the tumor; he referred to the fact that the artery divides before entering the gland, and in many cases the nerve is embraced by two of the branches; and if the artery is ligated and divided before dividing into its terminal branches, the nerve will be torn when the tumor is removed. He showed that there had been five deaths out of sixty-eight cases operated on by Billroth during the past six years. Of the sixty-eight cases, twenty were between thirty and sixty-five years of age, and forty-eight between twelve and thirty. One death, occurring during the operation, was due to the entrance of air into the inferior thyroid vein.—*Berliner klin. Wochensch.* and *Deutsche med. Wochensch.*, April, 1883.

A NEW SIGN OF PREGNANCY.—JORISENNE finds that change of posture from standing to sitting or lying down, produces a variation of from ten to twenty beats in the radial pulse in non-pregnant women. In pregnant women there is no change in the frequency of the pulse whatever position the patient may be in. The importance of this sign, in the opinion of M. Jorisenne, is that it enables a diagnosis of pregnancy to be made as early as the first month, when there may be no other sign or symptom present.—*London Medical Record*, April, 1883.

TINCTURE OF ACONITE IN NEURALGIC METRORRHAGIA.—CHÉRON, noting the fact that metrorrhagia not infrequently bears a close relationship to lumbo-abdominal neuralgia, thinks that aconite is indicated, and prescribes it in the following manner; one drop of the tincture in a teaspoonful of coffee to be taken every fifteen minutes for six consecutive hours without eating anything in the mean while. On the next day, if the hemorrhage is modified, the same dose is taken in the same manner; if not abated, two drops must be taken every fifteen minutes. The maximum daily dose should never exceed forty-five or fifty drops. [Of course, Fleming's tincture is not here referred to.]—*Journal de Médicine de Paris*, April 28, 1883.

ADDISON'S DISEASE.—The latest contribution to the above subject consists in a concise essay by DR. BURGER, of Bonn (*Die Nebennieren und der Morbus Addisonii*). The writer sums up as follows: That structurally the supra-renal capsules should be classed with the blood-vascular glands, and they are not necessary for life. They have no connection with the cutaneous bronzing of morbus Addisonii; a pigmentation which is not peculiar to that affection, since it may be present in very different forms of cachexia. Diseases of the supra-renal capsules are not uncommon, and they very often run their course without producing the phenomena of Addison's disease. In Addison's disease the most varied forms of supra-renal capsular affection may occur; but when supra-renal disease is present, it does not contribute to the symptoms of Addison's disease, which depends upon an affection of the semilunar ganglia and solar plexus. This nerve change is generally brought about by disease of the supra-renals, the most frequent form of which is tuberculous inflammation. But the affection of the semilunar ganglia and solar plexus may be equally induced by disease of other organs, and may further arise spontaneously, so that the symptoms of Addison's disease may be produced apart from any change in the supra-renal capsules.—*Gaillard's Med. Journ.*, May 12, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, MAY 19, 1883.

THE REACTIONS OF DEGENERATION.

BELOW we make some comments on a case of spinal lesion secondary to an injury of the sciatic nerve, reported from Charcot's clinic. In the course of that distinguished neurologist's remarks, he signifies his acceptance, in their entirety, of the observations of Erb on "the reactions of degeneration," and adopts the German symbols by which these reactions are given a mathematical mode of expression. Buzzard, the author of a recent work on a certain group of nervous affections, Ross, Bristowe, and other well-known English neurological authorities, have also expressed their concurrence in Erb's views, and in the formulated symbols by which he gives them concrete expression. Admitted thus by the best representatives of German, French, and English opinion, it may be safely conceded that the condition of nerves and muscles now known under the term—the reactions of degeneration—has a real existence. When the simplicity of these reactions, as regards their form and interpretation, is considered, the surprise is that they should have continued so long unknown. We owe to Erb, after the "polar method," the discovery—if so imposing a word can be applied to the recognition of the facts and their right explanation.

The first thing our readers not familiar with the phrase will demand of us is an explanation of the term—"reactions of degeneration." This will be readily comprehended if it is understood at the outset that nerves and muscles "respond" or "react" in a certain definite manner, when in a normal condition, to the stimulation of the galvanic and of the faradic current. In conditions of disease, the response or reaction is altered. The behavior of healthy nerves and muscles, when expressed in certain symbols, is entitled the "normal formula," and in disease there may be a complete reversal or a total abolition of the normal formula. It is quite impossible, in the limits of an editorial article, to give the details: we must content us with general statements.

Muscles stimulated directly, or indirectly through the motor nerve, by a galvanic current contract, on the making or closing, or on the breaking or opening, of the circuit. If the tension of the current be equal throughout, the muscles are quiet or relaxed during its passage. There are differences in the muscular action, according as the current is made or broken by the positive (anode) or negative (cathode) pole. The symbols now in universal use to express these normal reactions, are derived from the German words. The negative pole—the Cathode—is represented by Ka (Kathode), and the positive—Anode—by An (Anode). The opening or breaking of the circuit is O, from *Oeffnung*, opening; and closing or making the circuit is S, from *Schliessung*, closing. It follows that the symbols for opening and closing the circuit with the anode or cathode will be AnO, anodal opening, and AnS, anodal closing; and KaO, cathodal opening, and KaS, cathodal closing. As muscular action takes place on opening and closing the galvanic current, it follows that there must be a symbol to express it. The word *Zuckung* signifies contraction, and hence the symbol Z. When the contraction is normal, the symbol Z is used; when strong, the symbol is an accentuated Z'; when weak, a small letter is used, as, for example, z; and when tetanic, Te. There are three several grades of action in which the results of stimulation of motor nerves by the poles are expressed in the formulæ. There is, first, the weakest current, which will cause a muscular contraction — a cathodal closing contraction = KaSZ; but no contraction from the anode. Next, the current which causes stronger contraction on cathodal closing, KaSZ', but no contraction on opening; whilst the anode induces slight contractions both on opening and closing = AnSz, and AnOz. Third, which is the highest, the current causes a tetanic contraction on cathodal closing, and a feeble cathodal opening contraction, KaSTe, KaOz; also, on anodal opening and closing, there are decided contractions, AnOZ, AnSZ.

Such are the normal formulæ; in other words, such are the symbols by which we express the normal reactions of the motor nerves and the muscles on stimulation by the galvanic current. We have now to consider the modifications made in

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these by disease. It is the merit of the distinguished Professor at Heidelberg, to have clearly set forth these modifications—to have rightly interpreted their significance, and to have indicated the treatment necessary. Injury to the motor nerves, or to that segment of the spinal cord from which the nerves take their origin will set up the reactions of degeneration. Erb, strongly and justly, insists on studying the nerves apart from the muscles. In the case of injury or disease of the motor nerves, at first there is, as a rule, an increase of electric excitability, but then a quantitative decline ensues, and if the injury is complete and not remediable, by the twelfth day the electric excitability disappears. When the disease is in the spinal cord or motor nerves, changes occur in the excitability of the muscles to the faradic current. In about a week after the paralysis appears in the muscles they begin to decline in their faradic excitability, which is soon after extinguished, and is permanent in incurable cases, but when regeneration of the nervous elements can be effected the muscles regain, but never wholly, their power of response to faradic excitation.

Very different is the behavior of the paralyzed muscles to the *galvanic* current. At first the excitability of the muscles declines to the galvanic current as it does to the faradic, but after the first week the galvanic excitability increases, so that in a few weeks a feeble current which would not in health move the muscles, now causes lively contractions. Besides the increase in galvanic excitability, qualitative changes ensue in the law of muscular contraction, and at length the normal formula is reversed. To these quantitative and qualitative changes in the muscular contractions chiefly belongs the term—the reactions of degeneration. Their diagnostic significance is great. Indeed, it may be affirmed that, without the application of these principles, a correct diagnosis of spinal and nerve lesions becomes impossible. That Charcot admits the importance of these principles by applying them closely in the investigation and treatment of disease, is the fact which we desired to impress on our readers by the editorial comments below.

IN a recent clinical lecture on a case of spinal lesion secondary to a contusion of the sciatic, CHARCOT confirms the views of Erb regarding the electric reactions of the affected nerves and muscles. Not only so, but he adopts Erb's phraseology, and the German words on which the symbols are based. Charcot, also, emphasizes the value of these electric reactions in diagnosis and in prognosis.

The points of interest in this case are two: the results of the contusion; the admirable skill with which the spinal lesion is demonstrated. Given a contusion of the greater and less sciatic nerves on one side, there followed an extension upward of the neuritis, and a secondary implication of the spinal cord. The spinal affection is demonstrated by the paralysis of the sphincters, the loss of genital power, and the weakness of the muscles on the injured, and on the side opposite the injury. The condition of the parts—especially of the nerves and muscles—is most clearly shown by the electrical reactions, Erb's reactions of degeneration. The precise seat of the spinal lesion is also thus mapped out. By a methodical exploration, with both faradic and galvanic currents, not only is the whole affected area ascertained with exactness, but the prognosis and therapy are clearly indicated.

FAT EMBOLISM.

WHILE it is vaguely known to physicians and surgeons that emboli composed of fat are occasionally found in the bloodvessels of the lungs, especially in diabetes mellitus, and certain crushing injuries to bone, it has perhaps not occurred to many that they may be a cause of death after injuries to the soft parts. Such would seem to be the fact according to some recent observations by PINNER, published in *Berliner klin. Woch.*, of March 26.

A man, aged 61, was run over by a heavy wagon, fracturing the head of the left fibula, and tearing it from its tibial attachment. The soft parts were much lacerated and the skin undermined; the peroneal nerve was torn from its position, and lay exposed for from three to four centimetres. Out of the enlarged wound flowed a considerable quantity of blood mixed with a conspicuous amount of fluid fat, which, upon cooling formed upon the surface of the leg a thick, stiff layer. On the fourth day, he became restless, and although quieted by morphia did not sleep. At the morning visit, his face was pale, death-like, he spoke in a whisper, though consciousness remained; and he complained of the dressings being tight, although this was found not to be the case, and the wound was still healthy. The pulse was accelerated, 108, small, easily compressible; respirations 24, loud and deep. Later, the latter became deeper, the pulse more frequent and irregular, the extremities cold and moist. Still later the radial pulse was imperceptible, the heart sounds scarcely audible, respirations frequent and shallow, and he died at the end of four days.

At the *autopsy*, in addition to the lesions described, the subcutaneous tissue of the lower third of the thigh, as well as the upper third of the leg, was distended with blood, partly fluid and partly coagulated, but the joint was unopened, and the great vessels were intact. The brain was free from

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important changes, except the sinus at the base contained, in addition to partly fluid and partly coagulated blood, fat drops, not numerous but clearly recognized. At the apex of the right ventricle, otherwise almost empty of blood, was a loose clot, on the surface of which a small quantity of fat was clearly discernible. The left auricle was filled with a loose clot in which there was a large amount of fat, while the left ventricle contained little blood, but a large quantity of fat, so that the inner surface of the blood-stained ventricular wall appeared as if covered with dew-drops.

On microscopic investigation there was found to be extensive plugging by fat of the bloodvessels of the lung, those of large calibre as well as the finest capillaries, resulting in some places in the most exquisite capillary injections about the alveoli. In a few glomeruli, also, of the kidney, individual loops were similarly injected, but nowhere else was fat found.

The source of this fat, Pinner believes to have been the subcutaneous connective tissue which was rich in fat, and which in his view has received too little attention in the study of fat embolism. It could certainly not have originated in the broken bone, which was a small one, and contained a scanty and thin medullary substance. According to the experiments of Scriba upon animals, extended to human pathology, it would be necessary that two hundred and ten grammes of fat should enter the circulation to cause the death of an adult. Now it is calculated that the femur of an adult man contains but seventy grammes of fat, so that some other source than the bone must be looked for. This must be contributed by the soft parts, which are always more or less injured in fractures.

That the death in this case was due to fat embolism there seems to be no reasonable doubt. There were no symptoms of death from the injury itself, as those of collapse; nor were there any of septicæmia. Nor did the autopsy furnish any facts pointing to either of these causes. On the other hand, there was evident embarrassed respiration, such as would be expected from obstruction of the bloodvessels of the lungs.

We would suggest to our pathologists, who may have the opportunity of making autopsies in cases of death after injuries, that they seek for evidences of the presence of this, as yet imperfectly studied, cause of death.

DIABETIC PHTHISIS.

MANY cases of diabetic phthisis have recently been reported in the German journals, in which tubercle-bacilli have been invariably found in the cavities in the lungs. The natural inference from these facts is that the diabetic constitution is favorable soil for the fixation and development of tubercle-bacilli; as well as that the phthisis of diabetes is identical with ordinary phthisis—in other words, is a true tuberculosis.

FRANZ RIEGEL, of Giessen, communicates an observation (*Centralbl. f. klin. Med.*, March 31, 1883) which inclines him to believe that the diabetic is subject to another form of phthisical process, which is non-tuberculous in its nature, and that this may be diagnosticated during life, although he admits that his position has not, as yet, been confirmed by an autopsy.

Four cases of diabetes have recently been treated in his medical clinic. Of these, two presented no lung symptoms, while two did. In the sputum of one of these last, numerous tubercle-bacilli were found. In that of the other, although there were the most distinctive signs of infiltration of the lung apex, and although more than fifty preparations were investigated with the greatest care, no bacilli were ever found. Ever since the discovery of the bacillus by Koch, it has been the practice in this clinic to examine in all cases for the bacillus, so that the charge of inexperience cannot be brought. The sputum presented unusual characters, rather those described by Leyden as characteristic of abscess formation.

From the above observations, Riegel concludes that there does occur in diabetics another form of phthisis, which has nothing to do with tuberculosis, and which may be clinically distinguished from it by the absence of bacilli from the sputum. Morbid anatomy, in fact, confirms this position; for it has been found that in addition to the ordinary form of phthisis, there also occurs in diabetics a chronic fibroid pneumonia with ulceration. Such a pneumonia Marchand described in the right apex of the lung of a diabetic twenty-one years old, in which there were in addition to the fibroid changes, several smooth-walled cavities, as large as a cherry, but no tuberculous or cheesy change. In such a case, tubercle-bacilli would be constantly absent from the sputum, which would also contain the morphological constituents characteristic of abscess of the lung.

THE INCONTINENCE OF RETENTION.

THE veteran Prof. Gross never used a happier phrase than this to designate a pathological state of frequent occurrence, and yet often wholly misunderstood. Some time since we saw a gentleman from a neighboring State who had "incontinence of urine," and the urinary odor about him was both diagnostic and disgusting. For six years he had never gone to bed without a bowl between his thighs to catch the dribbling urine—this, too, in spite of the fact that he was compelled to rise a dozen times during the night to void his urine—and the

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numerous accidents that had occurred can be readily imagined. He had been under medical care during all this time, yet no one had ever tried the simple experiment of catheterization! After emptying his bladder of all he could pass (four ounces), the catheter drew off thirty-two ounces more! The diagnosis and the treatment were equally plain, and the result in every way gratifying.

But the consequences of such neglect may be far more serious than mere discomfort and disgust. The cause of the incontinence is, of course, an overfull bladder from atony of the bladder, or more frequently from some form of obstruction. This may be followed by all its usual consequences, such as vesical hypertrophy, decomposition of the urine, cystitis, dilatation of the ureters, and renal disease. A very striking case of double hydronephrosis, due to an enlarged prostate and its resulting retention, has been lately published by Dr. D. W. Prentiss, of Washington. The catheter, had it been used both for diagnosis and treatment, as pointed out by Dr. Prentiss, would have prolonged his life in comparative comfort, but its neglect allowed great dilatation both of the bladder and ureters, with fatal mischief to the kidneys.

Indeed, it may be laid down as a rule that, in every case of incontinence, the prostate should be examined and the catheter should be used. Especially should this be done in old men, and in cases in which any supra-pubic dulness exists. The operation is so trivial as to pain and danger, that no excuse ought to be allowed. Of course, if prostatic enlargement or stricture exist, the catheterization may not be a trivial operation, but the diagnosis will be established, and a rational treatment will then be instituted.

The above will be to many of our readers trite and common-place. But it has seemed to us worth while to call attention anew to the subject in consequence of the frequency with which we have lately seen cases of retention, followed by urinary overflow, in which incorrect diagnoses were made, chiefly, from neglect to use the catheter.

THE BACILLUS OF GLANDERS, AND ITS DIAGNOSTIC VALUE.

LOFFLER and SHÜTZ first showed that glanders in animals was accompanied by a special form of bacillus, and that these bacilli were found in specially prepared sections of the nodules of glanders, found in the liver, spleen, lungs, etc. In size, they resemble very closely the bacilli of tuberculosis. These bacilli, after culture in blood-serum, reproduced glanders in animals inoculated by them. Recently WASSILIEFF (*Deut. med. Woch.*, March 14) had an opportunity to study the blood and pus from pustules and nasal secretion from a postillion who had acquired glanders. In all of these (with powers of 900 to 1,300 diams.) he found the bacilli above named. He found them most abundant in the contents of the unripe pustules. Almost all the bacilli contained spores, for the most part four, but sometimes five and six, in which latter case they were somewhat larger. These rod-shaped organisms appeared for the most part singly, more seldom in groups of two and three.

Now, the primary symptoms of glanders are so slightly characteristic, even if infection be suspected, that the diagnosis is often extremely difficult, especially where the lungs or skin are primarily affected; and weeks often elapse before it can be definitely made. The presence of this vegetable parasite, in the different secretions, if shown to be essential and constant, will of course be of signal service in detecting a disease whose early recognition is of great importance in consequence of its highly contagious character.

IN our editorial upon Koch and his American critics, published some weeks since, we say, "Of Sternberg, Koch disposes summarily by saying that because he could not find the bacilli he denied their existence." We were, of course, quoting Koch, without expressing any opinion of our own. In point of fact, Dr. Sternberg was among the first to discover the bacillus in the sputum of phthisis treated by Ehrlich's method, although he failed, as many others did, with the method first published by Koch. Sternberg announced this fact in THE MEDICAL NEWS of September 16, 1882. Our object was simply to show how Koch treated those whom he called his critics. In point of fact, Dr. S. can hardly be called a critic of Koch, since he not only found the bacilli in sputum, but also, repeating Koch's inoculation experiments upon guinea-pigs and rabbits, succeeded in a certain number of cases. These results he likewise published in THE MEDICAL NEWS for Dec. 20, 1882.

We take pleasure in recalling these observations of Dr. Sternberg, because we fear that some of our readers may have construed Koch's criticism of him as our own, and any such erroneous impression we desire to correct.

THE Fifth Annual Congress of the American Laryngological Association will be held in the Hall of the Academy of Medicine in New York on Monday next and the succeeding days, under the presidency of Dr. George M. Lefferts, of New York. The programme of the meeting, which has just been issued, contains the titles of twenty-two papers, which give promise of proving of more than usual interest to this year's proceedings.

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SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Thirty-first Annual Session, held at Norristown, May 9, 10, and 11, 1883.

(Specially reported for THE MEDICAL NEWS.)

(*Concluded from p. 545.*)

THURSDAY, MAY 10TH.—SECOND DAY.

MORNING SESSION.

THE PRESIDENT announced that discussion of the previously read papers was in order.

TREATMENT OF CARCINOMA OF THE BREAST.

DR. CHAS. B. NANCREDE, of Philadelphia, said that he wished to endorse the remarks which had been made upon the treatment of carcinoma. He was induced to speak from the great importance of the subject of Dr. S. W. Gross' paper. It would be a matter of surprise that the manifest advantages of the method of operating advocated by Dr. S. W. Gross were not universally recognized, were it not that our *a priori* theories controlled our practice. Those who believe in the constitutional origin of cancer, of course, do not approve of such apparently severe operations. When the disease recurs after partial removals, they adduce the cases as proofs of the truth of their views. Mr. Moore, of London, many years since, pointed out the effect of these inadequate operations upon our theories of cancer, and advocated more radical measures. He then reported a case of a young married woman, whose right breast he had removed for carcinoma within three months after the first appearance of the disease. It started during pregnancy, and the axillary glandular growth was larger than the primary mammary tumor. He had freely removed everything, and had bared the axillary vessels for some distance. The patient, at the end of nearly two years and nine months, is still perfectly free from local or general recurrence. Three well-known microscopists had confirmed the diagnosis after careful examination of the specimen. Experience has shown that partial removals of the breast are, in reality, more dangerous than complete excisions. Dr. Nancrede believed that by discarding the use of the knife, and substituting the fingers, or dull-pointed curved scissors, after the axilla is opened, any ordinary operator could proceed with safety. He had thus bared the axillary, carotid, and femoral arteries with impunity. He thought that even with all its dangers of blood-poisoning, etc., the free drainage, by obviating intra-traumatic pressure, more than counterbalanced the severity of the operation.

Under the head of

NEW BUSINESS,

the CORRESPONDING SECRETARY read the report of the case of Dr. D. S. Hays, of Hollidaysburg, Pa., *vs.* Blair County Medical Society. The Board of Censors of the Sixth District of Pennsylvania, after carefully considering the case, dismissed the appeal.

A communication was read, by Dr. Hiram Corson, from the American Anti-Vivisection Society, asking that the State Medical Society give attention to the matter of vivisection.

On motion of Dr. J. T. Eskridge, a committee of five persons was appointed to consider this subject, and to report at the next meeting of the Society. The President subsequently appointed the following members to serve on the Committee: Drs. Hiram Corson, E. A. Wood, Wm. S. Little, S. Weir Mitchell, and H. C. Wood.

The announcement of the members of the Nominating Committee from the different counties was made as follows: Adams, A. Noel; Allegheny, T. J. Gallaher; Armstrong, R. L. McCurdy; Blair, W. R. Findley; Bradford, E. P. Allen; Bucks, Joseph Foulke; Cambria, M. J. Donnelly; Centre, Philip S. Fisher; Chester, Edward Jackson; Clearfield, S. C. Stewart; Columbia, L. B. Kline; Crawford, G. O. Moody; Cumberland, R. L. Sibbet; Dauphin, Hugh Hamilton; Delaware, I. N. Kerlin; Erie, J. L. Stewart; Fayette, Ellis Philip; Franklin, John Montgomery; Huntingdon, A. B. Brubaugh; Indiana, T. B. Ansley; Jefferson, W. M. B. Gibson; Lancaster, J. A. E. Reed; Lackawanna, J. W. Gebbs; Luzerne, Louis Taylor; Lycoming, John W. Young; Mifflin, A. Rothrock; Montour, S. S. Schultz; Northampton, C. McIntire, Jr.; Philadelphia, W. G. Porter; Schuylkill, J. S. Callan; Snyder, J. H. Kanawell; Venango, S. Gustine Snowden; Warren, F. A. Shugart; Westmoreland, J. A. Fulton; York, W. S. Rowland.

PROF. S. D. GROSS offered the following resolutions, which were adopted, concerning the

APPROPRIATION FOR THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE AND MEDICAL MUSEUM.

Whereas, This Society has observed with regret that the bill reported in the last session of Congress by the Committee of Public Buildings, recommending the erection of a fire-proof building to contain the library and museum of the Surgeon-General's Office, was passed over in the pressure of business, and

Whereas, The medical profession of the whole country is interested in the preservation of the same, therefore be it

Resolved, That in the opinion of this Society it is the urgent duty of the incoming Congress to provide for the erection of a suitable fire-proof building to receive the Library and Museum above named, so that the books and specimens may be safely kept and made easy of access.

Resolved, That this Society strongly deprecates any change from the present management of the Library and Museum, and, above all, the severing of these collections by the merging of the power into the National Library as destructive of its utility.

Resolved, That it is highly to be desired that Congress should make a sufficient annual appropriation to admit of the purchase of all new medical books and journals wherever published, in order that this, the library of the medical profession of the United States, may manifest its usefulness. It is further recommended that authority be given to complete the *Index Catalogue*. And it is further

Resolved, That the members of the Society will regard it as a duty to impress these views, either personally or by letter, on such senators and members of Congress as they may be acquainted with, and that a copy of these resolutions duly authenticated, shall be sent by the Secretary to each representative and senator from this State.

DR. W. W. KEEN offered the following:

Resolved, That the Medical Society of the State of Pennsylvania, in view of the very urgent need of enlarging the facilities for dissection, both in the medical schools of Pennsylvania, and also by physicians throughout the entire State—a privilege now denied—most earnestly urge upon the Legislature of Pennsylvania, of the passage of the pending Anatomy Bill, as now before the House in its amended form.

This was carried unanimously, and on motion of Dr. Roberts, it was directed to be sent to the Legislature, with the signature of each member of the Nominating

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Committee, as well as the President and Secretary of this Society. The following report of the Nominating Committee was then presented, and adopted, which is equivalent to election.

The following were chosen

OFFICERS FOR 1884.

President.—Henry H. Smith, of Philadelphia.

Vice-Presidents.—Ellis Philip, of Fayette; H. B. Van Valzah, of Clearfield; J. W. Kerr, of Allegheny; S. S. Schultz, of Danville.

Permanent Secretary.—William B. Atkinson, of Philadelphia.

Recording Secretary.—Morris S. French, of Philadelphia.

Treasurer.—Benjamin Lee, of Philadelphia.

Corresponding Secretary.—John G. Lee, of Philadelphia.

Philadelphia was fixed as the place of meeting next year, and Dr. John B. Roberts was appointed Chairman of the Committee of Arrangements.

AFTERNOON SESSION.

The Treasurer's annual report was read. The balance on May 11, 1882, was $1965.68, and the receipts during the year were $2269.91. The expenditures were $1871.75, leaving a balance in the treasury at this time of $2363.84.

The Treasurer announced that the County Societies of Lehigh and Bradford, had forfeited their membership by non-payment of dues.

The report contained the following resolution containing the

PUBLICATION OF THE TRANSACTIONS,

which was also adopted.

"*Resolved*, That this committee recommends that the publication committee be instructed to have the *Transactions* of the Society printed, and ready for distribution within three months from the date of final adjournment of the Society."

By request of the committee on publication, the following was subsequently adopted:

"*Resolved*, That all manuscript for publication in the volume of *Transactions* for this session, be required to be in the hands of the committee by June 1, 1883, or be omitted."

DR. GEO. O. MOODY, of Titusville, in the

ADDRESS IN OBSTETRICS,

reviewed the principal events which marked the progress of this department during the last five years. He insisted, at the outset, upon the participation of every organ and fibre of the pregnant woman in the parturient process, and declared that the responsibility of the accoucheur did not cease with the safe delivery of the child, but that it continued until the reëstablishment of the health of the mother.

Referring to abortions, the large mortality he declared to be due principally to retained secundines and consequent hemorrhage. Expectant treatment here is to be condemned, the immediate and complete evacuation of the uterus by dilatation, forceps and the curette is the only protection against bleeding, septicæmia, and other accidents. Authorities advise that the tampon should, as a rule, be discarded in favor of the sponge tent, where threatened collapse prevents immediate attempts at removal of retained placenta; in cases where the hemorrhage is treated *early* by the tampon, the secundines may be discharged from the uterus and removed with the tampon, which in such cases becomes a safe and valuable aid in dilating the os and exciting contraction. If this result is not obtained within thirty-six hours, the lecturer advised to delay no longer, but to proceed at once to dilatation and complete evacuation of the uterine cavity, the finger being the safest instrument, but the curette, and placenta-forceps are sometimes indispensable.

In discussing the obstetric forceps, Tarnier's instrument was described, and spoken of with praise, but it was not considered essential to the armamentarium of the practising physician, as it is only safe in experienced and familiar hands. From his own experience, he regarded the simpler forceps all sufficient. Out of nineteen hundred cases of childbirth, taken from the practice of Dr. Geo. W. Barr, a former colleague, and himself, there were forty-one cases of forceps delivery, without any discovered lesion of the parturient canal, except an occasional ruptured perineum.

With regard to puerperal convulsions, he made a distinction between the nervous form and an apoplectic form; the former generally recover, the latter generally do not, in the latter venesection and cathartics are often serviceable. In the uræmic form the treatment to be pursued is that usually directed to acute nephritis—hot bottles, wet pack, etc., externally, and chloral hydrate internally, with other remedies that may appear indicated. Early delivery was recommended.

Support of the perineum during delivery was considered as an efficient means of preventing rupture of the perineum. The treatment of cases of extra-uterine pregnancy by electricity was referred to in terms of commendation, as affording hope of recovery to cases otherwise hopeless.

Speaking of oxytocics, he said the newly discovered ergot alkaloid (chalbazian of Paris), given hypodermically in doses of one-fiftieth of a grain, promises to be of great value on account of its very prompt action. Quinine, though valuable in uterine inertia, is not sufficiently active to make its use dangerous for malarial attacks during pregnancy.

Lacerations of the cervix uteri are not only a frequent cause of sterility, but may give rise to epithelioma. The caution is given to the accoucheur in the use of forceps within the os, not to proceed too rapidly, but to exercise the same precaution against laceration as he does with the perineum. Anæsthetics in precipitate labors and opium in the tedious first stage of labor, are also valuable adjuncts.

Post-partum hemorrhage caused the death of four hundred and ninety-one women, in Great Britain during 1881, and many who survived suffered with ill-health for a long time afterwards. Electricity is preferred to styptics, but in cases of threatened death, iron injections may be resorted to with proper precautions. The introduction of the hand as recommended by Thomas, or vinegar injections, are often efficient, and are safer than the iron.

In placenta prævia, he recommended the tampon, formed of a conical linen bag stuffed with carbolized cotton.

The address closed with a consideration of antiseptic midwifery and its relations to puerperal fever. The various conditions of the patient which predispose to fevers, particularly post-partum hemorrhage, were referred to; and the need of systematic use of disinfectant injections, and antiseptic cleanliness around the lying-in chamber were strongly insisted upon. The hands and every instrument which comes in contact with the parturient canal, both before and after labor, should be thoroughly and carefully disinfected.

In the treatment of puerpural septicæmia and pyæmia, daily vaginal washes of carbolized water or other disinfectant, and hypodermic injections of phenic acid or oil of eucalyptus had been followed by recovery.

DR. HENRY LEFFMANN, of Philadelphia, then delivered

THE ADDRESS IN HYGIENE.

Hygiene, he said, although a science recognized by the earlier physicians, has found extensive develop-

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ment as a specialty only of late years. The superstitions of past times have usually obstructed all attempts at preventive medicine, but at the present the mass of the community recognize disease not as a visitation, but as a natural result of violations of natural laws. The practical study of the causation of disease is a feature of modern research, and although sanitarians are divided in opinion as to the correctness of the so-called germ theory, these differences do not offer any obstacle to true sanitary reforms, since all are agreed that cleanliness and pure air are the essentials to public health. The most serious hygienic errors of the day, are the dread of exposure to the vicissitudes of the weather, and a disposition to attach too much importance to the danger of taking cold. Quotations from writers on hygiene were given to show that severe exposure can be borne with advantage, also details of special cases illustrating the same fact. While many cases of disease arise from various excesses, many others undoubtedly owe their origin to exaggerated fear of "drafts" and "night air," this fear finding special expression in the close and badly ventilated condition of our bed-rooms.

Voluntary papers were now in order.

DR. SAMUEL W. AYRES, of Pittsburg, read a very able paper on

OUR ASYLUMS AND OUR INSANE,

in which some details of management and administration of the internal affairs of these institutions in their direct bearing upon their inmates was discussed, and criticisms and suggestions of improvement made.

With regard to the superintendent, it was said that "there is no disguising the fact that a superintendent cannot be at the same time purveyor, farmer, florist, horticulturist, paymaster, clerk, steward, financier, board of managers, lobbyist, etc., and practising physician. It is simply preposterous, and yet it is daily attempted, to the detriment of all concerned. The remedy is, "let the superintendent be a physician of high medical attainments, skilled in the practice of medicine, and then specially qualified in nervous and mental diseases." Let him devote his whole time to the cure and treatment of his patients, just as the general practitioner does to his. Let him have absolutely nothing to do with the ordinary business and administrative affairs of the institution, but let these be entrusted to the proper officers, who shall report to the executive board. The minor details of management and organization would follow in their proper order.

Assistant physicians should be selected from those who have paid especial attention to nervous diseases, and have taken a special course on insanity. As medical colleges, as a rule, have not established chairs of didactic and clinical psychiatry, the assistant physicians should receive sufficient instruction and assistance from the superintendent upon diagnosis, clinical history and treatment, so that they be not left unaided in the treatment of a disease most obscure to them; unless they receive such instructions, their entire course will be but one of guesswork and empiricism. In some institutions, each assistant has charge of from 200 to 300 patients, and sometimes has their exclusive medical care. "There should be at least one such officer to 100 patients in the State hospitals, where, it must not be forgotten, the great majority of inmates are incurable and need no special medical care. In other, or private asylums, where many recent and curable cases are received, this ratio should be much increased.

Consulting medical staffs are of great assistance to the medical officers, and to the patients, if properly appointed and conducted. Two alienists, a surgeon, a gynecologist, and a general practitioner would constitute a proper board, which should be an active, and not a mere dress-parade one.

As many asylums are now conducted, the strictly medical therapeutics of insanity is much neglected, and a routine both in prescribing and dispensing prevails. More attention and study of this subject are required by asylum physicians. Pathological work should also be carried on; the failure to do so in most hospitals is a natural consequence of the imperfections of the system and the inexperience of superintendents in pathological investigation.

Gynecological treatment is too much neglected in asylums. The wards are often greatly overcrowded and poorly ventilated.

The employment of patients is one of the problems of hospital management, and when intelligently and humanely carried on, it is a valuable adjunct to the treatment.

In order to prevent charges of unjust commitments, which are generally groundless, it should be required of the medical officers of hospitals that they render to some lunacy or other board their opinion as to the sanity or insanity of all patients, within one week after admission, this opinion to be based upon a careful examination in each case. With regard to prolonged detentions, they would be less liable to occur if patients were seen every day, and their cases carefully studied. "Owing to the failure of superintendents to give their personal and frequent attention to the inmates, I am satisfied that many restored persons are detained unnecessarily long, and others, through the importuning of relatives, are discharged before they ought to be."

Restraint is too frequently employed in our asylums; and on account of the facility with which it is abused it should be abolished altogether from hospitals in this country, as it has been in England and Scotland. Cruelties by attendants are more frequent than acknowledged by medical officers, or visiting managers; such offenses should meet with exemplary punishment.

With regard to the prevention of insanity, more knowledge is needed by the public, and especially the family physician, for under his care such incipient cases generally fall. Insanity in its forming stage may be easily cured; home treatment is to be preferred, if this is impracticable, then the case should be sent to a small private hospital or retreat, leaving the asylum as a last resort.

DR. R. J. LEVIS, of Philadelphia, then gave an account of some

SURGICAL EXPEDIENTS IN EMERGENCIES,

in which the skill and readiness of the surgeon are often severely tested. Some of these suggestions were quite ingenious.

In case of an *overdistended bladder*, where prompt relief is necessary and no catheter is at hand, he had taken a piece of bell-wire doubled upon itself so as to form a loop, which was readily passed along the urethral canal into the bladder. In a female a rye-straw might be used, its end being rounded with a little sealing-wax, or the stem of a clay-pipe, as crude substitutes for a catheter. In *phlebotomy*, when a proper lancet is not at hand, an ordinary pocket-knife will answer, provided the vein be held in position by transfixing it with a needle after applying the ordinary bandage.

For *obstinate epistaxis* requiring plugging of the nostril, a piece of sponge to which a string is fastened, is forced through the meatus to the posterior naris, small pieces of sponge are then to be threaded on this cord and pushed in succession into the passage until it is filled; when the danger of hemorrhage is over, they can be removed by reversing this process. Another good method in an emergency is to take a portion of the intestine of a chicken or other small animal, close

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one end and pass it through the meatus; water or air may now be forced into the portion in the nostril so as to make equable compression. If it is necessary to plug the posterior nares, a slender gum bougie, or a piece of thick catgut ligature may be passed along the floor of the nostril and brought out under the soft palate; a string can then be attached and brought out of the nose in front by withdrawing the bougie, the sponge can then be employed in the usual manner.

In case of *bleeding from an intercostal artery* from a homicidal wound, he had succeeded in arresting the hemorrhage by introducing the upper part of an ordinary key into the pleural cavity, then turning it at a right angle, and making pressure upon the vessel. After this had been continued for some hours, the bleeding ceased.

A very efficient substitute for the *Esmarch elastic bandage*, is a flannel roller cut bias. For dislodging and forcing downward a *foreign body in the œsophagus*, an ordinary carriage or riding whip knotted sufficiently far from the end to ensure flexibility, may be used.

Good temporary *dressings for fractures* may be extemporized by tearing palm-leaf fans into strips; a more permanent fixed dressing can be made by dipping ordinary sand-paper in hot water, and applying it while soft, it adapts itself to the shape of the limb, but becomes sufficiently strong and rigid afterwards; hard dressings can also be made with starch, or eggs and flour.

In moving a patient with *fractured thigh*, the sound limb may be made into a splint, by fastening the legs together. In treating fractures of the femur, complicated apparatus is not necessary; simple extension by weights is all sufficient, the limb being kept in position by lateral supports or sand-bags. The postural method without splints is to be preferred in all fractures near to joints; fracture of clavicle is best treated by the supine position, with the head slightly elevated.

An ordinary gimlet is an efficient instrument with which to *open the mastoid cells* in case of abscess and threatening cerebral complication. The carpenter's rasp may sometimes replace the trephine in replacing fragments of bone after fracture of the skull.

A rubber tube may be used instead of a syringe in cases of *obstruction of the bowels*, the fluid being injected by hydrostatic pressure.

The substitution for belladonna of stramonium where a mydriatic is needed, and replacing carbolic acid by sulphurous acid, as a disinfectant; and the employment of hot water in place of all other styptics, were also mentioned. Dr. Levis prefers the straight glover's needle in place of the ordinary curved surgical needle for sutures.

DR. P. D. KEYSER, of Philadelphia, read a paper entitled

SOME OPHTHALMOLOGICAL OBSERVATIONS DURING TEN YEARS' SERVICE [1872–82] IN WILLS' EYE HOSPITAL.

In the affections of the lids, all the general forms of disease were more or less met with, and in the treatment of tarsal inflammation, many cases were much benefited by the use of De Wecker's pomade antiblepharitique, slightly modified as follows: Oleopalmitate of lead, 20 parts; almond oil, 10 parts; simple cerate, 5 parts; balsam of Peru, 1 part; liquid tar, ½ part. In most if not all cases of this affection met with, anomalies of refraction were found, the correction of which was necessary to succeed in a permanent cure.

In the treatment of conjunctivitis, weak solutions of astringents, instilled frequently into the eye, were found more efficient than strong solutions used once or twice daily. In purulent and gonorrhœal forms, reliance was placed upon frequent cleansing of the eye, and alternate instillation of saturated solution of boric acid and a weak solution of nitrate of silver.

Membranous conjunctivitis was treated successfully by a collyrium of chlorate of potash and hot applications, with quinine and iron internally.

Detachment of the retina was treated by several methods of operation, including that of De Wecker's drainage, and also by the use of pilocarpine internally and hypodermically, but without any great permanent success from either.

DR. JOSEPH HEARN, of Philadelphia, made some remarks on the

TREATMENT OF RODENT ULCER,

and exhibited three cases which he had had under treatment; one cured, the others greatly improved. In another case, which was not present, the disease had involved the eyeball and tissues around the orbit. The diseased eye was removed and the orbit cleaned out, the wound cicatrized; the patient is now well. One of the cases was a man in whom the disease had existed for six years, spreading over the right side of his head and destroying the auricle. He was operated upon two months ago by free scarification and caustics, and he is now getting well; the surface had almost healed. This case, it is believed, can be entirely cured. In the next case the disease likewise attacked the side of the head, and had existed for twenty years, for eighteen years he had had almost no treatment, but about two years ago he commenced to have pain, and the side of the face became paralyzed. The pain afterward became intense, and compelled him to apply for relief at the Jefferson College Clinic. The left auricle was then greatly deformed and almost destroyed. He was treated like the preceding one, and is now getting better. The third case is a woman, who had a patch of rodent ulcer upon her face; caustic was applied and she is now entirely cured.

Dr. Hearn claimed that if cases are properly treated they are readily cured, and even those where the disease had advanced so much as to be apparently hopeless, may get entirely well; but if a do-nothing treatment be pursued, the disease will steadily progress to a fatal issue. With regard to the character, it may be said to be non-malignant if properly treated, malignant if neglected.

Rodent ulcer usually begins as a nodule or papule in the skin, this is followed by a crust, which afterwards falls off leaving a raw surface surmounted by a swollen or papular border; it spreads by slow extension of this border. Unless proper treatment be instituted, it destroys everything down to the bones.

It is distinguished from simple ulcer by its mode of origin and slow course; and the rapid growth of syphilitic ulcers, and their multiple character, will easily enable them to be excluded. Syphilis occasions more destruction in a few months than rodent ulcer will in several years. From lupus, the diagnosis can be made positively only with the microscope; the border of rodent ulcer is composed of epithelial structure, that of lupus is infiltrated; the course of the two affections is also different.

The treatment of rodent ulcer is entire removal of the diseased tissue, by the knife or caustic.

The characteristics of rodent ulcer are, its slow growth, its occurrence in persons of advanced age—rarely earlier; though when it follows traumatism it may occur early; the patient from whom the eye was removed was only twenty-seven years of age, and it appeared first two years after the injury. In its growth it obliterates the capillaries and lymphatic vessels, and therefore does not infiltrate. The pain is slight, except when a nerve becomes involved. The lesion is usually solitary. In lupus, the growth is multiple. The man-

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ner of extension is characteristic; one portion partially heals, while it spreads in another direction; one part cicatrizing, another progressing.

As to the treatment: when the disease is of large size, the knife must be used in connection with the caustic; the floor of the ulcer may be destroyed by caustic potassa, or hydrofluoric acid, or the Esmarch caustic. If the disease is near the bone, we must use the caustic. If the disease attack the eye, the orbit must be cleaned out and packed with the chloride of lime paste. In ordinary surface disease, he had seen the best results from caustic potassa. Usually, after the slough separates healing takes place, but occasionally one or two points will require additional application. Where patients refuse the knife, the caustic will sometimes answer equally as well as excision, if thoroughly applied. The potash is best used in a stick, and is to be especially used on the border.

In cases of so-called cicatrizing epithelioma, which are very similar to rodent ulcer, the ethylate of sodium has been highly recommended, applied with a brush or pledget of absorbent cotton; a thin slough separates, and cicatrization generally follows.

THE CARE OF THE HAIR.

DR. JOHN V. SHOEMAKER, of Philadelphia, read a paper on the use and care of the hair, in which the physiology of the hairy scalp was particularly considered, and the principles of hygiene in their application to treatment of the various capillary disorders especially insisted upon. The head-covering is considered responsible for early loss of hair, the stiff hats being especially condemned. After bathing, the hair should be thoroughly dried, and some unguent used; sea-water is injurious, if there is already a tendency to thinning of the hair; frequent cutting makes the hair coarse, and should not be permitted in young children, it also retards the growth of the hair; curling and crimping the hair are also condemned; hair tonics, dyes, and bleaching solutions of protoxide of hydrogen, are all injurious to the hair; depilatory applications should never be used.

Under the head of

UNFINISHED BUSINESS,

the Committee of Conference on the Schedule for

PRELIMINARY EXAMINATION OF STUDENTS

before engaging with a preceptor or commencing the study of medicine, recommended the following for adoption by the Society, in order that there may be uniformity in the Examining Boards of the several county medical societies:

SCHEDULE FOR EXAMINATION OF STUDENTS.

(1) Candidate's previous course of study; (2) An essay; (3) An essay written from dictation; (4) Spelling, oral and written; (5) Reading; (6) Geography; Political economy; (8) History, ancient and modern; (9) Geology; (10) Botany; (11) Chemistry; (12) Natural philosophy; (13) Mathematics, arithmetic complete, algebra through quadratic equations; geometry through plane geometry; (14) Languages—English, Latin, and Greek, the quantity of the latter to be at the discretion of the Examining Board.

This report lead to considerable discussion.

DR. JAMES TYSON, of Philadelphia, said that he was in favor of making an examination necessary prior to commencing the study of medicine, in order to ascertain if the candidate possesses sufficient preliminary education to enable him to engage in medical studies. It is necessary to adopt some practical method, but he thought the standard would be found to be not practicable. The colleges are anxious to adopt measures that will meet the views of the profession, but the requirements should not be too high at first. Three years ago the University of Pennsylvania adopted a qualification prior to matriculation, writing a simple essay in order to determine the spelling and writing process of the applicant; and, also, an oral examination in physics, such questions as how to change the degrees of Fahrenheit into Centigrade, etc. The result of this was, that the first year's class at once fell from 135 to 115, and the next year it was down to 98; the following year the reaction set in, and the Freshman Class went up to 115 again. The mere idea of a preliminary examination, kept incompetent men away, for only a few were rejected as utterly unfit, but many were conditioned. If we had sent away all who could not pass the examinations in physics the first year, we would have rejected half the class. The ultimate result has been beneficial; the members of the class are now of a much higher grade than before. For instance, of the 115, 35 had degrees in arts and sciences, about 30 more presented certificates from high schools and academies, the remaining 50 were examined, and of these not more than one-half were admitted after being conditioned on physics; each year we notice that a smaller number are conditioned, that is, a smaller proportion present themselves who are not educated. Now, this is a result of small beginnings. He was in favor of going to the full extent prescribed by the Committee, and to go to any extent recommended by this Society, but he believed that the carrying out of this schedule is impossible at present, and, therefore, if it is adopted, we would be obliged to go against the authority to which we look for advice and assistance. He said the University of Pennsylvania was desirous of raising the standard of requirements of preliminary education, and will gladly adopt any feasible method recommended by this Society.

DR. WHITCOMB asked how the Society would influence the colleges and county societies which refuse to carry out these rules?

DR. ULRICH defended the resolutions, as a step in advance, and recommended that students be sent only to colleges having advanced courses.

DR. S. D. GROSS asked how many students in the State of Pennsylvania could come up to those requirements? He said he was glad the schedule offered was not in existence when he commenced his medical studies as it might have effectually prevented them. He spoke in favor of the early study of practical anatomy by the student in preference to cramming him with books. He believed that a great injustice was often done to students by their preceptors in keeping them learning lessons by rote, when they should be acquiring knowledge in the post-mortem and dissecting rooms. The list of subjects presented is doubtless a good one, and men of the mental calibre of the committee could easily pass it, but many of the best practitioners of medicine and surgery never could. He thought the scheme impracticable and impolitic and hoped that the Society would not commit itself by its adoption.

DR. JACKSON called attention to the text of the schedule and said that there is not a high school in Pennsylvania which does not require this much from boys sixteen to eighteen years of age.

DR. BISHOP thought that the result of establishing a schedule of examinations like that proposed and making it obligatory, would be simply driving medical students out of Pennsylvania into other States that did not have such requirements. He thought it advisable to recommend the members not to take students at all, but send them directly to the colleges, where they could put in their time to better advantage. He hoped that the resolutions would be modified, so that instead of the examinations being compulsory they shall be advisory.

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DR. DONNELLY recommended the adoption of the schedule, and thought that it should not be objected to by the colleges of Philadelphia. He could not see anything in the list that should meet with objection.

DR. UHLER thought that the remarks of Prof. Gross do not apply to students of the present day as they would to those of half a century ago. He believed that the colleges are not doing justice to any young man to allow him to begin the study of medicine, and after spending his money and time for two or three years, to turn around and say to him, you are not qualified to pursue the practice of the profession. This preliminary examination is only intended to prove to the young man that he is unfit before he spends his time and money.

DR. DE LONG said that if he had been told when he began the study of medicine what preliminary education was necessary, it would have saved him great trouble in acquiring it afterward, when he discovered the need. He thought that the greatest injustice was that he was not informed by his preceptor of his deficiencies when he commenced his studies.

DR. ALLIS reminded the members that this report is based upon resolutions adopted by the Society in 1878, by which such examinations are made compulsory. The action has stood before this Society for five years, and it is based upon recommendations of the American Medical Association. These examinations cannot be optional as long as those resolutions remain; they can be changed by action of the Society at any time.

DR. FINLEY, of Altoona, regretted that there was any discussion whatever upon the schedule; and was ashamed to learn that the colleges were in any way dependent upon the fees of young men who are not perfectly qualified for entering their studies. Over the medical colleges we have no control whatever. Ever since the establishment of the American Medical Association, and this Society, in 1848, not a single year has passed without pleas to the medical colleges for assistance in establishing a preliminary examination for students, but without the first spark of encouragement thus far. In answer to the objections which had been urged against this scheme, he referred to the Presidential Address before this Society, in 1850, of the late Dr. Samuel Jackson, a distinguished professor in the University of Pennsylvania, and to that of the illustrious Emeritus Professor of Surgery of Jefferson College, in 1883, before the American Medical Association, in both of which similar preliminary examination is most ably and earnestly advocated.

DR. S. D. GROSS said that he hoped that he would not be misunderstood. The ground he took many years ago he occupied to-day; he had never deviated a moment from the opinions he had then expressed. Where do our students come from? As a rule, from the offices of private preceptors, who send them unprepared to the colleges. He had spoken feelingly upon this subject a few moments ago, for he had himself spent eighteen months in the office of a high-toned, honorable gentleman, to whom he had paid two hundred dollars, and his time was misspent; he had great difficulty afterwards in making up, by great efforts, the time and money lost. All that he objected to is that the standard is placed at too high a point; and the only effect will be to drive students out of the State of Pennsylvania. It is of the first importance that the examiners inquire into a young man's moral character; he should be a gentleman by breeding and education; then a fair knowledge of his mother-tongue; some knowledge of Latin and Greek, but not too much. Let the standard be low. Of what use to the medical student is higher mathematics, geology, mineralogy, and botany? Who makes his own medicines at the present day? The time was when a knowledge of botany was essential; it is so no longer. If a man desires to study botany, let him do so; but, my word for it, he will not make much of a student of medicine.

A vote was then taken, and the resolutions and schedule were adopted.

On motion, two thousand copies of the report were ordered to be printed and sent one to each member of every county medical society in the State.

DR. R. L. SIBBETT, of Carlisle, read a lengthy report of the

COMMITTEE ON MEDICAL LEGISLATION,

giving a history of the Registration Act, and referring to its operation, and describing the difficulties in obtaining medical legislation. It recommended that efforts be now made to create a higher standard of public opinion upon medical topics, and, with this in view, urged the appointment of special committees to present papers before the annual meeting upon topics affecting the public health.

DR. E. A. WOOD, of Pittsburgh, said that registration is a failure. It simply lifts up the quack to the standing of the regular physician. He moved that the thanks of the Society be tendered the Committee for its labors, that the report be accepted, and the Committee discharged. Adopted.

TRAINED NURSES.

PROF. GROSS offered the following, which was also adopted:

Whereas, Good and well-trained nurses are of the utmost importance in every sick room, as a means of promoting the comfort of the patient and restoration to health; therefore

Resolved, That the physicians of every county represented in this Society, be requested to institute at suitable points, courses of instructions in the art and science of nursing, for such persons, male and female, who may be desirous of availing themselves of its benefits.

A resolution was offered by Dr. Curwen, that the President of the Society be requested to appoint a committee of three members on each of the following subjects: Medicine, surgery, diseases of women and children, insanity, idiocy, and ophthalmology. The duty of the committees shall be to prepare a series of questions calculated to obtain the history and treatment of the different forms of disease. It was adopted.

FRIDAY, MAY 11TH.—THIRD DAY.

MORNING SESSION.

After prayer by the REV. A. J. WEDDELL,

THE ADDRESS ON MENTAL DISORDERS

was delivered by DR. JOHN CURWEN, of Warren, and he choose for his special subject *Some Hints Toward the Prevention of Mental and Nervous Disorders*. He said no fact is more firmly fixed by physiological laws than that special physical conformations, peculiarities of manner, and modes of thought, which may inhere in any person, may be transmitted in full force and intensity to one or all of the children begotten by that person, and from the fact urged the necessity of a careful study of the life histories of individuals, in order to arrive at more exact knowledge in relation to the causes and conditions attending such cases, that thus more systematic efforts may be made for the prevention of mental and nervous disorders.

Reference was made to the impaired health of the mother during gestation as a frequent cause of mental and nervous disorders, and urged that special attention be given to the condition of the mother, to avoid, as far as may be, all sources of disease and various annoyances, to avoid these effects on the child. An

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attentive study of individual cases would show wherein the connection might be traced, and thus by a careful collation of a large number of cases, some definite data could be obtained on which to found, or from which to formulate, some general directions for the conduct of such cases. Two opposite classes would require special care and management—the wives of farmers, mechanics, and laborers, who are compelled to do a large amount of household work, very often under trying circumstances giving rise to much anxiety and worry—and that class in the cities who spend their time in a round of gaiety and fashionable dissipation.

The profession should be more decided in their statements to those under their care in relation to many things which have an injurious influence on the health of the parents and their offspring, so as to prevent, as far as in their power, all such influences.

Special attention is called to the prime importance of the inculcation of habits of obedience in children, at the earliest age. The practice of sending children to school at an early age is deprecated, as tending to interfere with the proper physical development, and thus interfering with the proper training of the mental powers. Too much study in early childhood is deprecated, as tending to retard the development of the powers of the mind, and too many subjects of study at one time are objected to as likely to overtask the powers.

The necessity of ample and regular nutrition in childhood, youth, and mature years was strongly insisted on.

Regularity must be strictly observed in all the affairs of life; regularity in eating, regularity in exercise, in sleep, and in everything the individual is called upon to do, so as to maintain the due regularity which accompanies all the actions of the economy.

The importance of an ample amount of sleep at all periods of life was most especially insisted on, as no one thing was more likely to disorder the system than irregular and insufficient sleep. The amount of mental labor which can be borne with safety was dwelt on, and the fallacy exposed of requiring so much from growing children, whose brains were immature and in process of growth, and the danger pointed out of the ill-effects of such a course.

The character of the literature of the day was also spoken of as calculated to develop the passions and emotions to a much greater degree than the other powers, and thus with feeble intellectual training and a weak will, many were apt to become victims to morbid trains of thought and feeling, which led to mental disorders or some sudden termination of life in consonance with the books read. Such reading also leads to the indulgence of various secret habits, which have an effect in weakening the nervous system and placing the individual in such a condition as to be on the borderland between sanity and insanity, and thus in that morbid state which makes him the annoyance of the physician and the support of the irregular practitioner, who promises everything and does nothing to benefit the patient. The evil influence of tobacco on the young was also dwelt on, and the effect on the development of the mind pointed out.

MITRAL STENOSIS.

DR. J. T. ESKRIDGE, of Philadelphia, read a paper on the diagnosis, prognosis, and treatment of mitral stenosis. Of the two varieties of pre-systolic murmur, the vibratory or rough, and the bellows-like or soft, he agreed with Flint in the statement that the first is of much greater frequency than the second; indeed, he stated that he had never met with an instance of soft pre-systolic murmur. He had observed that mitral stenosis and mitral insufficiency were associated in about two-thirds of all the cases presenting the pre-systolic murmur, while Hayden (*Disease of Heart and Aorta*) believed that about one-half the mitral obstructive lesions are unattended by mitral regurgitation. With regard to the diagnosis of mitral stenosis, the pre-systolic murmur and purring thrill are the physical signs of most importance; the abruptness of the ending of the murmur in uncomplicated cases is especially noticeable, the bruit being best heard over the left ventricle, near the fourth cartilage, and is very rarely conveyed to the axilla or the back of the chest. In a feebly acting heart with this condition of mitral stenosis, the murmur may be temporarily, or even permanently, absent; on the other hand, according to Flint, a well-marked pre-systolic mitral murmur may exist without the presence of stenosis, but associated with aortic insufficiency. This, however, has been denied by Fagge and Balfour, and Dr. Eskridge could not confirm it from his own observations, but declared that he had never met with a case presenting this murmur in which mitral obstruction did not exist.

With reference to prognosis, the result will depend upon the extent of the lesion and the condition of associated organs, the coexistence of mitral regurgitation makes the prognosis more unfavorable.

In the treatment: 1. Rest in the recumbent posture. 2. Avoiding stimulants. 3. Protecting the surface from changes in temperature. 4. Local treatment by dry cupping, venesection, counter-irritants, and poultices may be used at discretion. For internal specific medication digitalis, when it agrees with the stomach, and is not contra-indicated otherwise; *Convallaria maialis* may also prove valuable, but he could not speak very favorably of it from personal experience.

DR. BOWEN, of Philadelphia, referred to two symptons, which are always present in mitral obstruction, even when murmur is absent. 1. Irregular rhythm, due to the difficulty in forcing the blood through the narrowed orifice into the ventricle, producing sometimes a double systolic impulse. 2. A valvular character of the first sound. This is very important in diagnosis, in the absence of murmur.

DR. ESKRIDGE attributed the absence of murmur in some cases to weakness of the cardiac muscle. In every case which he had seen early, there had been a murmur.

With regard to the first short sound, it sometimes occurs and sometimes does not. It is impossible in cases of atheroma and calcareous degeneration, where there are obstruction and regurgitation, the valves being too much ossified to be set in vibration by the blood.

Great irregularity of pulse also occurs late in the disease rather than early; irregularity is very unfrequent early in cases of mitral obstruction.

DR. WALKER, of Philadelphia, regarded it as impossible to diagnosticate mitral stenosis from simple roughening of the valves. A presystolic murmur of low pitch and course tone, when unassociated with mitral regurgitation and pulmonary symptoms, and irregularity of the heart, is of little moment; it may be considered as due to deformity of the valves. If the murmur is due to a button-hole opening, it will be high-pitched.

LITHÆMIA.

DR. JAMES B. WALKER read a communication upon lithæmia, which he said was a term applied to a diathesis, in which there exists a tendency to the undue production of uric or lithic acid, which, being less soluble and less readily eliminated than urea, sometimes accumulates until it is present in the blood in sufficient quantity to produce toxic effects.

It gives rise to a characteristic circulatory disorder by stimulating the muscles of the arterioles and causing their contraction. It retards the egress of the blood from

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the arterial system, and thus leads to arterial hyperæmia. This calls for increased force of the left ventricle in emptying itself, and, through both agencies, we have developed the most characteristic symptoms of the lithic toxæmia, viz., *a pulse of high arterial tension*. The increased arterial recoil thus occasioned, so long as the aortic orifice remains impervious in diastole, causes an *accentuation of the aortic second sound*.

The increased arterial tension also occasions increased urination, the urine being high-colored and of a low specific gravity.

These constitute the prominent symptoms of toxæmia. But to them may be added others due to functional or organic disturbance of any organ of the body.

If treated early, when only functional disturbances have been engendered, it promises speedy relief. If organic changes have resulted, the organism is to that extent permanently crippled.

The *treatment* consists in

1. *Lessening the amount of nitrogenous detritus* by diminishing the amount of animal food. Meat must be used sparingly, though milk may be given freely. Vegetables should constitute a large proportion of the diet.

2. Bringing about as complete a combustion of the tissue waste as is possible, by bodily exercise and fresh air, in order that the uric acid may be converted into urea.

3. *Rendering more soluble and more readily excreted the uric acid which remains.* Lithia and potassium form with uric acid its most soluble compounds. These may be given as citrates or acetates in sufficient quantity, and for a long period, without injurious effects.

4. *Antagonizing by physiological antidotes the more violent and severe symptoms.* For the nervous symptoms which are most frequently the cause of complaint, the bromide of potassium is perhaps the most serviceable. For the angina pectoris, which is due to general vaso-motor spasm, cardiac as well as systemic, and which constitutes, when present, a most alarming symptom, amyl nitrite is the remedy *par excellence*.

For the complex symptoms likely to arise, appropriate treatment is demanded; but the lithæmia must not be overlooked in any one.

DR. E. T. BRUEN, of Philadelphia, spoke of the possibility of impacted renal calculus in lithæmia as a cause of pain in the lumbar region, in cases where lithic acid has been found for a long time in the urine. There is no great alteration in the urine, and certainly no albumen to indicate it, but only the obscure pain to suggest it. It can only be diagnosticated from all other causes of pain in the back by exclusion. He referred to two such cases, seen with Dr. Tyson, and mentioned this merely to refer to a possible cause of pain in the back.

DR. WOOD, of Pittsburg, said that the vibratile pulse which occurs commonly in lithæmia, can be relieved by suppositories of extract of opium and belladonna.

In a paper on the

CLINICAL USE OF CONVALLARIA MAIALIS,

DR. E. T. BRUEN, of Philadelphia, reviewed the physiological action of the drug, and illustrated clinically the employment of the drug.

He said he had found convallaria serviceable in those cases of acute disease of the lungs in which irregularity of the heart is a symptom. In these cases, the action of convallaria is helped by its combination with digitalis, the latter drug having a principal influence as a tonic to the cardiac muscle, the convallaria apparently exercising a principal influence on the vagi, or at least it inhibits the cardiac rhythm.

In organic valvular disease convallaria is most useful in cases of mitral obstruction. In these, the action of the heart is likely to be irregular, because the volume of blood returned to the left heart through the left pulmonary circulation has not time enough to empty itself through the left auriculo-ventricular opening. Relief of pulmonary congestion is the most constant indication for treatment. This has been met by venesection, by cups, by rest, by digitalis, but since digitalis is more of a tonic to the cardiac muscle than a stimulant to the vagi, we often find its use unsatisfactory. The indication is to slow the rhythm of the heart, and thus permit the right heart and left ventricle to empty themselves into the left ventricle, *afterward* it becomes needful to administer cardiac stimulants.

Irregular heart, as a symptom of mitral regurgitation, has been less positively benefited, since in these cases cardiac irregularity is a symptom of cardiac fatty degeneration. In mitral obstruction irregularity is an initial symptom.

Convallaria loses its effectiveness in valvular heart disease in proportion to the amount of fatty degeneration of the heart. Assuming as proven that the vagi are stimulated by digitalis, and that the reduction in number of the cardiac pulsations when digitalis is exhibited is due to this stimulation, it has been commonly found that when there is advanced fatty change in the heart the inhibitory effects of digitalis are less perfect, since there is less muscle through which the vagi could assert their influence. Moreover, in fatty heart a more powerful cardiac stimulant, such as digitalis, is required, and not a regulator. In advanced valvular heart disease, or cardiac failure in the catarrhal nephritic forms of Bright's disease, convallaria has not proven more useful than digitalis.

The drug is, however, of great service in cases where palpitation and dyspnœa rather than deficient cardiac systole are the prominent features. Broadly speaking, cases of phthisis or asthma in which palpitation and dyspnœa are prominent symptoms before cardiac failure from advanced fatty change ensues, are much benefited by this drug.

Its effect is often brilliant in purely functional heart disorder, especially palpitation and irregular cardiac action dependent on general debility. Also in cases of anæmia or hysteria, and to remedy the irregular action of the heart caused by tobacco.

In conclusion, it is proper to state that the preparation employed has been the fluid extract (Parke, Davis, & Co.). The doses fifteen or twenty drops, given every three hours in adults until the desired effects have been produced. Smaller doses have proven entirely negative. The drug is by no means a substitute for digitalis, which combines the properties of a cardiac tonic and regulator to a greater degree than any one drug in our pharmacopœia.

DR. MUSSER, of Philadelphia, said that he had used convallaria in thirty cases of organic and functional diseases of the heart; about two-thirds of the cases were benefited, one-third were not benefited. With regard to the question of dropsy, the diuretic action of the drug was especially noticed where this symptom was present, but in three cases no relief was noticed; in two of these digitalis had also failed to give relief. The drug gave most benefit in mitral regurgitation; it is of little use in mitral stenosis. In combined aortic and mitral disease, it had given satisfactory results after the failure of digitalis. In cases of functional disorder of the heart, its effect was less evident. In one case of cardiac asthma it gave decided benefit; the heart slowed and became more regular in a short time, the pulse became stronger and fuller. Although the cardiac symptoms were relieved, the dyspnœa was not, contrary to the usual representations about the drug. In no case had he noticed any relief from dyspnœa.

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The usual dose was fifteen to thirty drops of fluid extract, where it failed the doses had been too large; smaller doses should be given at first. There is no instance of cumulative action; the only disagreeable symptoms noticed were headache and dimness of vision in one case. The long use of the drug did not seem to give rise to any worse consequences than these; it appears free from dangerous effects. It seems principally to regulate the rhythm of the heart, at the same time increasing arterial tension, and the fulness and strength of the pulse.

DR. LEFFMANN presented, on behalf of the Philadelphia County Medical Society, the following

AMENDMENT TO THE BY-LAWS:

Resolved, That no paper shall be read before this Society, unless the same shall have been read beforehand, either in full or abstract, before a county society.

The hour of eleven having arrived, the Association went on a tour of

INSPECTION OF THE INSANE ASYLUM NEAR NORRISTOWN.

Mr. May, on behalf of the Board of Trustees, welcomed the Society, and spoke of the prominent features of the hospital; these are (1) relieving the medical superintendent of all domestic and administrative cares, outside of the medical care of the patients; (2) having a female physician in charge of the women; (3) non-restraint.

AFTERNOON SESSION.

The PRESIDENT called the meeting to order at 2 o'clock, in the chapel of the hospital. He announced the appointment of the committees.

DR. M. LANDESBERG, of Philadelphia, read a paper entitled

STRETCHING THE OPTIC NERVE,

in which he stated that he had performed the operation twenty-one times in thirteen patients. Sixteen times it was performed in the following manner: The conjunctiva was incised at the insertion of the internal muscle, which was then secured by a silk ligature. He then dissected up the internal muscle, and loosened Tenon's capsule and the underlying tissue down to the optic nerve: he then grasped the latter with a strabismus-hook, and stretched it gently three or four times. He then reattached the internal muscle by sutures, and applied a compressive bandage for a couple of days.

In five instances, the operation was performed without tenotomy, by making a slit in the lower and outer part of the conjunctiva, near the corneal margin, and passing a strabismus-hook between the external and inferior muscles down to the optic nerve. No bad consequences followed in any instance.

DR. W. S. LITTLE read a paper on

THE POSSIBILITY OF ABNORMAL OCULAR CONDITIONS, THROUGH THE SYMPATHETIC SYSTEM IMPAIRING THE FUNCTION OF THE UTERUS.

He reviewed the influence which disease of the uterus and its appendages has upon the eye, beginning at puberty and continuing to the menopause; both in the non-pregnant and pregnant state, as has been described by Prof. Förster, of Breslau, under the head of "Hysteria Kopiopia," and been fully corroborated by many observers, and more recently mentioned in Dr. Long Fox's Bradshaw Lecture, in which he related the influence of irritation from the hypogastric flexure, affords the most striking illustration, producing widespread and distant effects.

He next spoke of the influence of the eye, when the seat of irritation from unnecessary effort in seeing, upon the nervous system and some organs of the body, to which attention was called some years since by Drs. S. Weir Mitchell, and Wm. Thomson.

Dr. Little then traced the possibility of reflex irritation, as produced from a marked optical defect, differing in each eye, extending as far as the uterus, and impairing its function; regions more approximate, and other organs near the eye being markedly affected as well.

In the case in question, a married lady, thirty-four years of age, was seen in February, 1881, suffering from severe headache, pain in eyes, pain down region of neck, gastric disturbance, and marked hysteria. Examination of her eyes revealed a difference of refraction in each, one being hypermetropic, with hypermetropic astigmatism, and the other having hypermetropic astigmatism.

Relief from nearly all the symptoms rapidly followed the correction of the optical defect. At the time of treatment, no recognition was made of uterine trouble, or impaired function.

It was not till a year and a half afterward, she being in the mean time well, that I learned she had given birth to a female child, twelve years having elapsed since previous pregnancy, and the present being the second. There had been no miscarriages. The fact of this pregnancy having occurred so soon after the relief of her other troubles, which had persisted so long, and been relieved by correction of her optical defect, has drawn my attention to the influence that had existed, and reacted as far as the uterus and impaired its function.

In a paper on the

HYGIENIC MANAGEMENT OF CONSUMPTION,

DR. J. M. ANDERS, of Philadelphia, spoke very highly of the usefulness of house-plants and flowers in the sick-room, and as having positive therapeutic value in consumption. His researches had established the following facts:

1. That plants exhale aqueous vapor with great rapidity, at a rate of one and a quarter ounce by weight per square foot of leaf surface for twelve diurnal hours.

2. Through this process of transpiration they have the power to increase the humidity of the atmosphere of an apartment to any degree desired, by simply regulating the amount of leaf surface.

3. That the vapor emitted by plants is charged with some organic matter in passing through the plant, which may have peculiar sanitary value.

4. Recent experiments by the writer render it highly probable that flowering plants have the power of generating and emitting ozone.

A number of cases tending to show the value of plants as preventive and remedial agents in phthisis, are referred to, and other suggestive facts were communicated which render it strongly probable that the atmosphere of a room may be decidedly changed for the better for consumptives by the cultivation of house-plants with extensive leaf surface.

DR. ULRICH offered the following:

Resolved, That the Medical Society of the State of Pennsylvania desires to express its hearty appreciation of the kind hospitality and the reception extended to it by the Managers and the Medical Staff of the Norristown Hospital for the Insane.

Resolved, That the appointments of the Institution and admirable order prevailing, and absolute attention to cleanliness apparent in every department, have impressed us most favorably.

Resolved, That in the preparation for pathological and laboratory work, we see a promise of future scien-

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tific work, which cannot but throw light upon the difficult subject of cerebral disease.

These resolutions were carried unanimously.

DR. LEE offered the following, which were likewise adopted.

Resolved, That this Society having listened to the numerous able papers upon the proper care of the insane which have been read during the present session, in which this important question has been discussed from every possible stand-point with the utmost freedom of expression, and in a truly scientific spirit, considers the following conclusions justifiable:

1. The problems connected with this subject, which in so intricate a manner interweave themselves on the one hand with the most sacred social and domestic interests of life, and on the other hand call for executive ability of the highest order, and scientific attainments of no mean value, that only those who have made them the subject of careful and conscientious study are competent to attempt their solution or to criticise those who are endeavoring to work them out.

2. That the attempt to create an impression that the incarceration of sane persons in institutions for the insane from improper motives is one of the dangers of the day, and an unworthy aspersion upon our profession, and should be frowned down by all reasonable persons, whether lay or professional, as utterly unsupported by evidence.

3. That in the medical superintendents of our insane hospitals and their assistants, physicians of both sexes, we recognize a body of workers second to none in our profession in unselfish devotion to the interests of humanity in elevation of motive, and high standard of personal character and general attainments.

4. That it is evident that in order to place such institutions throughout our country in a position to properly fulfil their functions as hospitals, in the treatment and care of diseases of the brain, our State Legislature must be made to feel an interest in making such appropriations as shall greatly increase their medical staff, and furnish them with all the necessary appliances for the investigation of disease.

The President announced the following appointments of readers of

ADDRESSES IN 1884:

Medicine.—DR. W. H. DALY, of Pittsburg.

Surgery.—DR. JOHN B. ROBERTS, of Philadelphia.

Obstetrics.—DR. JACOB PRICE, of West Chester.

Hygiene and State Medicine.—DR. JOHN G. LEE, of Philadelphia.

Mental Disorders.—DR. ALICE BENNETT, of Norristown.

Ophthalmology in its Relation to General Medicine.—DR. WM. S. LITTLE, of Philadelphia.

A cordial note of thanks to the Montgomery County Medical Society and to the citizens of Norristown, for their hospitality, was adopted.

Drs. Gallaher and Pursell, were appointed a committee to conduct the newly elected President, Dr. Henry H. Smith, of Philadelphia, to the Chair.

The President-elect then made a brief address of thanks for the unexpected honor conferred upon him by the Society.

A vote of thanks was given to the retiring President, Dr. Varian, and the Society then adjourned.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, April 24, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

LYMPHANGIOMA OF THE SKIN.

DR. F. LANGE presented a patient, a girl, thirteen years of age, whom he first saw about three months ago. When three years old, the mother first noticed in the axillary region a spot about the size of a silver quarter of a dollar, which had a reddish color. Since that time the spot has slowly but gradually increased in size, and during the last year it has grown quite rapidly. When Dr. Lange first saw the patient, there was quite an extensive growth in the axilla, consisting of an elevation of tissue somewhat the shape of a horseshoe, with some irregular attachments, and on the whole presenting an appearance not unlike condylomata. The excrescence-like growth occupied a space about five or six inches in length, varying from half an inch to an inch in width, and from a half to three-quarters of an inch in height. Besides this more massy growth, there were quite a number of small whitish vesicles spread over the skin in the neighborhood, apparently containing fluid; and when the entire growth was examined very carefully, it was evident that the more prominent parts were made up of an agglomeration of these small vesicles, forming an apparently papillary growth, and between these, numerous large bloodvessels could be seen. Dr. Lange excised the upper part of this tumor, leaving behind, however, a number of these disseminated, small, whitish vesicles, because he thought that the wound would be too large if all the skin on which these vesicles were situated was removed. Besides, he hoped to obliterate these isolated points by some other method of treatment. The operation was performed eleven weeks ago. A wound almost the size of the hand was left, but it had healed comparatively smooth, suppuration occurring only in a few places. About four weeks ago he noticed that in the scar these little whitish vesicles had reappeared, and they could be distinctly seen on close inspection, and when punctured with a needle a clear fluid could be pressed out. The actual cautery had been applied once upon the disseminated vesicles, but in the scars vesicles had reappeared. At present, he advised the local application of the strong tincture of iodine. The growth was located exclusively in the cutis. In the deeper parts of the skin there was at one point a thick mass which looked not unlike elephantiasis. The bloodvessels were so much developed that it was necessary to apply quite a number of ligatures at the time of the operation.

He had noticed that Caposi, in his recent work, mentioned only one case that he had seen. Dr. Lange thought that the vesicles were due to distention of the lymphatic spaces, and believed that the vesicles on the cicatrix were due to the same change. He had operated in one other case, that of a small child, who had a similar growth upon the side of the thorax. In that case, the subcutaneous tissue was somewhat involved. He had also seen another case, which was operated upon by Professor Esmarch. In both of these cases, however, the skin was not involved to such an extent, and complete extirpation in healthy parts could be performed with lasting success.

ABSORPTION OF ZINC FROM THE LOCAL USE OF A SOLUTION OF CHLORIDE OF ZINC IN THE TREATMENT OF A BURN; NEPHRITIS.

DR. L. A. STIMSON presented mounted microscopic specimens of the kidney, which, together with the history, were furnished by Dr. W. L. Wardwell, House Surgeon at Bellevue Hospital. Robert W., aged four years, a quadroon, of feeble constitution, was admitted to Ward I., Bellevue Hospital, January 2, 1883, suffering from a scald of the back and side, which included the left side of the back to within one inch of the median line, extending from the third dorsal vertebra above to the second lumbar below, the left side of the chest, and the left anterior surface of the abdomen, the left axilla, and the lateral abdominal region below

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it; it extended down upon the anterior surface of the left thigh for three inches, and over the left acromion and lower part of the posterior surface of the neck. The scald differed in severity in its several localities upon the thigh and over the shoulder, and for the space of two inches at its edges only the epidermis was injured; in the axilla, just below it, and over the back, at the same level, the entire thickness of the integument was compromised.

Patient suffered at the time of the injury from shock, from which he reacted. The burns were dressed with carbolized vaseline spread upon strips of sheet lint; this being surrounded with cotton, and the whole secured by a bandage. The injured tissues sloughed extensively. The dressings were changed as often as necessary, and the patient's general condition carefully attended to. His temperature during this period fluctuated from 99° in the morning to 102° in the evening. On January 28, 1883, it was normal for the first time, it remained so for a few days; after that he rarely passed a day without an evening exacerbation of from one to two degrees. At the end of five weeks the sloughs had entirely separated, and the ulcer resulting was covered with small healthy granulations. During the following month the edges of the ulcer healed in very rapidly, and upon March 2d, two months after the injury, the original ulcer had diminished its dimensions one-half. During the next week the reparative forces appeared to be at a standstill, and during the two weeks following the newly formed cicatricial tissue broke down extensively, the ulcer regaining nearly its original dimensions. The patient complained of pain, and seemed to be relieved by frequent dressings. At these dressings the ulcer was sprinkled with a thin layer of iodoform, and then covered, as before, with sheet-lint spread with carbolized vaseline. About this time the urine was examined, as it had been when the patient first entered the hospital; no albumen or casts were found. Under this form of treatment no improvement took place, the appearance of the ulcer betokened a sluggish action; its edges were sloping and adherent, the lower portion was dotted with small islands of cicatrization, which had persisted while the surrounding tissue had broken down, the granulations were bluish in color, flabby, and did not bleed readily.

Upon April 4, 1883, the patient was etherized, the ulcer was washed with ʒiv of a five per cent. solution of chloride of zinc; there was no cavity or pocket in which any of the fluid could be retained. A dressing was applied consisting of three pads of *dry* carbolized gauze, each composed of six thicknesses of the gauze, these covered the ulcer only; over these was placed eight layers of gauge and one layer of mackintosh completely surrounding the body; the entire dressing was kept in place by numerous turns of a carbolized bandage. The patient vomited several times before the administration of the anæsthetic; this was attributed to some error in diet.

While reacting from the anæsthetic, patient vomited several times during the afternoon and evening. During April 5th, patient was either drowsy or sleeping most of the day; he appeared to be completely free from pain, and upon being questioned, replied that he felt well. His pulse was as good as before the dressing, and his changed behavior, which had been exceedingly irritable, and freedom from pain were subjects of congratulation, and were attributed to the good effects of the dressing; patient seemed to be easily nauseated and vomited several times. He was placed upon a milk diet, and bismuth was administered to check the vomiting. His temperature was, 10 A.M., 97½°; 10 P.M., 99°.

During April 6th, patient's general condition was much the same; his nausea persisted, but to a less extent. His temperature was, at 9 A.M., 97½°; 9 P.M., 99°. In the evening, the nurse reported, that patient had passed no urine for twelve hours; a poultice was placed over the abdomen, and pieces of ice put in the rectum; two hours later, he passed ʒiv of urine. This specimen was analyzed the following day, as follows: color, greenish-black; whitish sediment; specific grav. 1020; decidedly acid; albumen, one-third of bulk. Mr. Rice, the chemist at Bellevue Hospital, examined it chemically, and found that it contained *zinc* in a considerable amount. It was not tested for carbolic acid. During the twenty-four hours of April 7th, patient passed ʒiij of urine, of the same characteristics as that passed upon the 6th; a microscopical examination showed the presence of a few epithelial casts. Patient was placed upon the infusion of digitalis, and the region of the kidneys and bladder was poulticed. The pupils were not contracted. Temperature, 9 A.M., 98¼°; 6 P.M., 97½°; patient did not vomit but once; retained milk, ʒxvi, and a small amount of rice and milk.

April 8.—Patient passed ʒvss of urine, lighter in color than that passed before, but still decidedly greenish and containing a large number of casts of all varieties; he vomited several times during the day—otherwise his general condition was much the same—temperature, 9 A.M., 90°; 1 P.M., 101°; 5 P.M., 100°.

9th.—Patient complained that his back hurt him, and as the discharge had come through the dressing at several points, a new dressing was applied. As a result of the stimulation by the chloride of zinc, the character of the granulations had changed: they were decidedly more healthy and firm in appearance; the edges of the ulcer were making an effort at repair. At this dressing the surface of the ulcer was not disturbed by washing, and the *dry* pads of carbolized gauze were applied directly to its surface as before. After the dressing, patient was more comfortable. Temperature, 9 A.M., 98°; 5 P.M., 98°. He vomited several times during the twenty-four hours; he passed during the same period seven ounces of urine.

10th.—At 6.30 A.M., the house surgeon was called by the nurse, who reported that patient's temperature was 95½°. Patient was visited immediately. He was quiet; answered rationally; pulse rather more feeble than usual. He was surrounded with hot bottles, and given whiskey ʒj, with orders to the nurse to repeat the whiskey in fifteen minutes, and report in one-half hour if the temperature did not rise. Half an hour later the nurse reported that P. was still cold, and screaming with pain. The house surgeon immediately went to the ward, but, before reaching it, P. had died. The seven ounces of urine which P. had passed during April 9 were examined chemically for the presence of zinc: none was found. The color, which was darker than on the two days preceding, was found to be due to the presence of carbolic acid. Albumen was present in large amount, and casts of all varieties were more abundant than in any of the specimens previously examined. At no time during the course of the disease did P. show any signs of œdema, nor was he attacked by convulsions. A complete autopsy was not permitted. One kidney was obtained; weight, 4½ ounces. Capsule non-adherent; light in color; cortex swollen; stripings not distinct. Microscopically, the glomeruli are smaller than normal, either from pressure or contraction. Between them and the capsule there are decided spaces, which, in some instances, contain large cells, nucleated, suggestive of a glomerulo-nephritis. The cells lining the capsule are swollen and thickened, and, to a certain extent, desquamated. The capsules are thickened, probably the result of an œdema of the stroma. The convoluted

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tubes are in many situations enormously dilated, showing probable fatty changes in the epithelium, and desquamation of the latter. A number of the tubes contain hyaline, epithelial and blood-casts, and some few pus cells; but these are by no means frequent. Some of the tubes contain a detritus, which is suggestive of a preëxisting hæmoglobinuria, but this was not discovered during life. There are several foci of small-cell infiltration especially well marked in the vicinity of the bloodvessels.

DR. L. A. STIMSON presented a specimen which illustrated

BONE LESIONS OCCURRING AT A DISTANCE FROM A JOINT, BUT APPARENTLY PRODUCED BY ARTICULAR INFLAMMATION.

The specimen consisted of the lower portion of the femur and the upper portion of the tibia, removed by amputation from a man, who entered Bellevue Hospital on the 9th of April, 1883. He was thirty-two years of age, and stated that in October, 1881, he received a charge of buckshot just above the left knee; that five or six of the shot perforated the thigh from without inward, that two passed through the bone, four passed through the soft parts, and all but one made a complete passage through the limb; the sixth shot was cut out. He had been treated in various hospitals, and had undergone several operations, under ether, in some of which, so far as could be ascertained, bone was removed from the lower end of the femur; and the evidence remained of an incision having been made on the inner and outer sides of the thigh. Three weeks before admission to Bellevue Hospital, while in a city hospital, a phlegmon developed over the upper and inner portion of the tibia, on the same side. It was cut into by a straight incision, and the periosteum was found thickened and exit was given to a small quantity of pus which was between the periosteum and the bone. At that time the man desired amputation, but it was not performed, and he left that hospital and came to Bellevue, and asked that his limb should be taken off. There were two openings, one on the outer and the other on the inner side of the thigh at its lower part, and a third opening made by the operation three weeks ago, over the upper part of the tibia. The probe could be passed completely through the thigh at its lower portion, but no bare bone was detected; bare bone, however, could be detected through the opening made over the tibia. Amputation was decided upon, and was performed by Dr. Wardwell, at a point about four inches above the joint. After the soft parts had been removed from the limb, the bones were sawn longitudinally, and presented the following appearances: The femur above the condyles was enlarged by subperiosteal thickening; about an inch and a half above the joint there was an opening in the bone which passed completely through from one side to the other, and its surfaces were covered with granulations to such an extent that bare bone could not be detected at any point; the knee-joint was completely obliterated by fibrous adhesions between the opposing articular surfaces, so that there was only a very slight amount of motion in it; the tibia at about an inch and a half below the articular surface showed a central abscess, situated immediately beneath the incision which was made in the periosteum three weeks previously, and before admission to Bellevue Hospital; it was separated from the external surface by an intact layer of compact bone. Two days before the operation the patient complained of soreness in this region, and the limb presented the signs of phlegmonous inflammation at a point corresponding to the tubercle of the tibia where the extensor muscles are attached, and here a small opening in the bone was found, leading into the abscess. In the head of the tibia there were two hemorrhagic foci, neither of which had suppurated. There was a third hemorrhagic focus below the abscess first mentioned. The patient, thus far, was doing well.

NEWS ITEMS.

NEW ORLEANS.

(*From our Special Correspondent.*)

THE SMALLPOX MORTALITY for the week ending May 5th has fallen from forty-five in the preceding week, to thirty-four—fourteen white and twenty colored.

MONTREAL.

(*From our Special Correspondent.*)

LAVAL QUESTION.—There are no further developments in the Laval question; whether or not, the old French school can maintain its independence, is still doubtful. There are rumors of an affiliation with St. Joseph's, a Catholic university in Ottawa. Though the decree from Rome has been accepted without discussion, we hear that the murmurs, though not loud, are deep, and that a very strong feeling exists against the interference of the clergy in matters pertaining to medical education. But in this province, with the church, means success; against it, ruin.

BERLIN.

(*From our Special Correspondent.*)

PROF. v. BERGMANN.—There is a very lively period now in our medical world. To begin with surgery, we have to congratulate ourselves on the new acquisition made by the appointment of Professor v. Bergmann from Würzburg, as a teacher of clinical surgery in the University of Berlin. Born in the Russian Baltic provinces, and working many years as a professor at Dorpat, whence he made his name well known by his publications on "Sepsine," he reached the summit of his celebrity during the late Turko-Russian War, demonstrating then, for the first time, the applicability and the excellent results of Listerism in field practice, and saving the lives of many Russian soldiers with complicated fractures of the leg, or gunshot wounds of the knee-joint, by treating them antiseptically from the first moment. Since then, his reputation has rapidly grown. The University of Würzburg had enjoyed the benefit of his talents for but a few years, when the Berlin medical faculty offered him the chair made vacant by v. Langenbeck's resignation—a chair rendered illustrious not only by the names of v. Graefe (the uncle of the celebrated occulist) and Dieffenbach, but also by that of its last occupant.

Several recent publications of Prof. Bergmann—the last one on resection and suture of the intestines for the cure of artificial anus—give evidence that he does not intend to rest upon his laurels. Nor has he forgotten his former occupation as a field surgeon. In his capacity as surgeon-general of the Bavarian army, he has become an active member of the "Berliner militärärztliche Gesellschaft," where he delivered some lectures of great interest last winter. In the most important one, concerning the mechanism of gunshot fractures of the skull, Bergmann was able to show (by means of many preparations brought from the battle-fields near Plevna) that the influence of hydraulic pressure, although undeniable, has been highly overrated by some modern authors, the vast destruction of bone and brain being occasioned to a great extent by the particular shape of our modern musket-balls, which makes them liable to become deflected, thus causing

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fractures of the bone and lesions of the brain in directions quite different from the original.

HIRSCH'S HISTORISCH-GEOGRAPHISCHE PATHOLOGIE.—Prof. Hirsch has just finished the second volume of the new edition of his "*Historisch-geographische Pathologie.*" Here is an abstract of the table of contents: "Chronic infectious diseases (lepra arab., venereal diseases, yaws, button scurvy, verruga peruviana, endemic goitre, and cretinism); intoxications (ergotism, pellagra, pelade, milk-sickness, endemic colic); parasitic diseases (animal and vegetable parasites); infectious wound diseases (erysipelas, puerperal fever, hospital gangrene); chronic troubles of assimilation (chlorosis, anæmia intertropica, anæmia montana, scurvy, Beriberi, scrofulosis, diabetes, gout). A third volume will follow next year.

THE NEW CODE CONTROVERSY.—The Advisory Council of Physicians who support the New Code of Medical Ethics of the New York State Medical Society, met last Tuesday, at the residence of Dr. A. C. Post. Dr. Post presided. Drs. C. R. Agnew, D. B. St. John Roosa, F. R. Sturgis, H. G. Piffard, Joseph W. Howe, A. L. Loomis, F. A. Castle, and F. R. S. Drake, and Drs. Bailey and Snow, of Albany, were among the thirty physicians present.

The Committee on Canvassing reported a considerable accession of subscribers to the New Code.

Dr. Roosa presented a proposition from G. P. Putnam's Sons, for the publication of a book setting forth the main points in favor of the New Code, to counteract the influence of Dr. Austin Flint, Sr.'s, book in favor of the National Code, lately published. The proposition was accepted, and Dr. Roosa and the Committee on Intelligence were directed to prepare the volume.

The question then came up of the propriety of publishing some letters from some homœopathic physicians, designed to prove that certain prominent physicians of New York City, who are now earnest supporters of the National Code, have consulted with irregular practitioners. It was decided to publish them as campaign documents, with corroborative evidence.

Dr. J. W. Howe moved that a new canvass of the doctors of the State be made in order to ascertain their standing on the Code question. He said that many had pledged themselves for the National Code without due consideration, and many who had signed had since been converted to the New Code. It was decided to make a new canvass in the autumn.

CONNECTICUT MEDICAL SOCIETY.—The ninety-second annual convention of this Society, will be held in the City Hall, Hartford, next Wednesday and Thursday, under the presidency of Dr. Wm. G. Brownson.

WINNIPEG MEDICO-CHIRURGICAL SOCIETY.—The physicians of Winnipeg have formed a medico-chirurgical society, with the following officers:

President.—Dr. Lynch.

Vice-Presidents.—Dr. Whitefield, Dr. Codd.

Secretary and Treasurer.—Dr. Covernton.

COMMENCEMENT OF COLLEGE OF PHYSICIANS AND SURGEONS.—The sixty-seventh annual commencement of the College of Physicians and Surgeons, of New York City, was held on May 15. Diplomas were awarded to 125 graduates. President Porter, of Yale College, delivered the address to the graduates. The Cartwright alumni prize ($500), was awarded to Dr. Walter Mendelson.

NEW MEDICAL JOURNAL.—The National Association for the Protection of the Insane and Prevention of Insanity has commenced the issue of a quarterly journal, which will be its official organ, under the title of *The American Psychological Journal.* It is edited by Joseph Parrish, M.D., of Burlington, N. J., and published by Messrs. P. Blakiston, Son & Co., of Philadelphia. The April number, Vol. i., No. 1, contains the papers read at the last meeting of the Association, held in Philadelphia, on January 25 and 26, 1883.

A NEW EDITION OF THE BRITISH PHARMACOPŒIA.—The General Medical Council have arranged for a new edition of the British Pharmacopœia, to be prepared under its direction by Profs. Redwood, Bentley, and Attfield, at a compensation of £800, this sum to include the cost of any experiments requiring to be made. The pharmacopœia committee recommend considerable changes in chemical nomenclature, in symbol notation, and in the method of representing the quantities of ingredients to be used in the preparation of medicines. They advise the addition of twenty-nine articles, and the omission of three.

SPANISH ECONOMY.—A Spanish magistrate, in view of the increasing adulteration of articles of diet, has issued the following proclamation: "All articles, in the shape of wines, groceries, and provisions, which, npon examination and analysis, are proved to be injurious to health, will be confiscated forthwith, and distributed to the different charitable institutions."

THE FRONTAL ELECTRIC PHOTOPHORE.—MM. PAUL HELOT and G. TROUVÉ, have completed an apparatus to be attached to the forehead, which furnishes a light derived from a pile of supersaturated bichromate of potash. It can be used for several hours at a time. The light is very intense, and can be used in operations about the mouth, ear, vagina, etc.

PASTEUR'S PENSION.—The *Gazette Médicale* states "that it is expected that the Minister of Public Instruction will shortly lay before the Chambers a bill having for its object the increase of the annual pension voted by the Assembly to M. Pasteur from 12,000 fr. to 25,000 fr. This pension is to be reversible on the wife and children of the distinguished chemist. Without participating in all the opinions of M. Pasteur, and even while controverting some of them, no one will refuse his homage to the services which he has rendered to science, industry, and the public wealth; and everywhere, whether within Parliament or beyond its doors, approval will certainly be accorded to the expression of national gratitude which has led to this proposition."

BURIAL AFTER DEATH FROM CONTAGIOUS DISEASES IN BOSTON, MASS.—The Board of Health of the city of Boston, in pursuance of an Act recently passed relating to "The removal and transportation of certain bodies for burial," has issued a regulation, April 17, requiring that the bodies of all persons dying from smallpox, diphtheria, scarlet fever, typhus fever, or typhoid fever be immediately after death wrapped in a sheet saturated with a ten per cent. solution of chloride of zinc, and placed in a coffin, which must be made absolutely tight, and which must not be reopened. Undertakers and others having charge of the burial of bodies are instructed to comply with the regulation, and notify the Board of the compliance, whereupon will be issued the certificate which the law requires previous to the removal of the body.

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HEALTH OF NEW HAVEN, CONN.—Dr. C. A. Lindsley, Health Officer of New Haven, in his report for the year 1882 to the Board of Health, gives the mortality for the year at 1343, which, estimating the population at 72,000, is equivalent to a death-rate of 18.65 per 1000. The average death-rate for the last fifteen years has been 19.06 per 1000 of the population. The rate has varied in different years from 16.73 to 21.90. In six of the fifteen years the death-rate was less than in 1882. Dr. Lindsley, commenting on these facts, suggests that captious critics might contend that the labors of the Board of Health have been fruitless, since the mortality of the past year differs so little from the average of so many years before. But, he insists, such criticism would be unjust to the Board. New Haven is not yet a large city, but it has for years been presenting with more and more distinctness the sanitary evils of class gradation in the social scale. It has more poor, and a steadily increasing number of the very poor. It does not present many illustrations of the squalid misery and wretchedness of a New York tenement-house, but it has too many and too close approximations to it. Nevertheless, the death-rate has not increased; and it is no insignificant achievement to prevent an increase of mortality in a large community undergoing the transition from the wholesome conditions of a rural town to the many unwholesome conditions of a city.

Dr. Lindsley argues that with the present knowledge of the laws of hygiene it is within the limits of reasonable demands that the City of New Haven should be put under such sanitary rule as would insure a reduction of the death-rate to 13 or 14 per 1000 yearly. To effect this the city must get rid of the vast amount of filth which is stored in the many thousands of cess-pools and privy vaults honey-combing its site, and must prohibit its further accumulation. Authoritative control of the methods of house-drainage, including official supervision of all sewer connections is also needful. Nor is it considered too soon to provide legal restrictions respecting the erection of tenements in too close proximity, to dictate by law as to light and ventilation, to prohibit over-crowding, and the occupation of low, damp, and unhealthy basements, and to provide that the halls, staircases, hydrants, water-closets, privies, and such needful domestic arrangements, when designed for common use by many persons shall not be too limited in reference to the numbers using them; and that every precaution be taken for their constant care and cleanliness.

Efficient vaccination has protected the city from smallpox for several years back. There have been but fifteen deaths from this disease since, and including, the year 1873. The mortality from epidemic and contagious diseases during the year was exceedingly light; thus, there were but eleven deaths from scarlet fever, ten from measles, seventeen from whooping-cough, and twenty-four from typhoid fever. Croup and diphtheria occasioned sixty deaths, which number is slightly below the average for the previous ten years.

PROPOSED SEWERAGE FOR WILMINGTON, DELAWARE.—The Board of Health of this city (Dr. L. P. Bush, President), in its report for the year 1882, urges the disuse of the privy-pits and boxes which every year contribute more and more to the pollution of the whole substratum on which the city is built. For the disposal of sewage, the separate system is advocated, on the ground that it isolates all its contents from the general atmosphere; does not contaminate the soil; can be flushed and cleansed by properly adjusted, self-acting tanks, and, by proper plumbing, can be secured from the danger of infecting the dwellings of the people. The Delaware River is suggested as the outlet. Financial considerations are discussed thus: "There are 48,000 inhabitants in our city, which would give 9,000 families. A tax per annum of three dollars on each would amount to $27,000. The interest on $250,000 (the sum considered needful to cover the cost of construction) at four per cent. is $10,000, which would leave a balance of $17,000. Take $5.000 a year for repairs and supervision, and there would be $12,000 annually, which, applied to the reduction of the principal, would liquidate it in twenty years, after which a trifling sum would be sufficient to pay the expenses of the sewerage." The Board of Health called the attention of the City Council to the subject, and urges the propriety of memorializing the Legislature at its next session.

PLAGUE IN PERSIA.—The Sanitary Administration of the Ottoman Empire has received advices from Suleimania and Bagdad, dated April 14th, which state that one hundred and seventy deaths are reported as having been caused by the contagious epidemic which prevails in the villages of Zeitan and Bekir-beg, on the Persian frontier near the former city. It is characterized in every case by axillary and inguinal swellings. Quarantine measures are rigorously observed at the frontier and at Suleimania.

YELLOW FEVER IN RIO DE JANEIRO.—An epidemic has been prevailing in this city since the middle of March. During January, a few deaths were reported, but no apprehension was felt that the disease would spread as in 1880. In February, cases became more frequent. During the weeks ending February 3, 10, 17, and 24, the deaths reported numbered 5, 4, 5, and 13. In March, the advance of the disease became more rapid. During the weeks ending March 3, 10, 17, 24, and 31, the deaths were 24, 28, 41, 52, and 73. In the first week of April, 114 persons died, and in the second week 119, the total mortality from all causes during this week being 371. The shipping has remained comparatively free from the infection. One death was reported among the sailors on March 24, and another on April 14.

The figures given above do not include the deaths from the disease in the Santa Isabel Hospital; the reports from this hospital extend only to March 31.

	January.	February.	March.	Total.
Admitted,	7	96	365	468
Recovered,	...	15	182	197
Died,	6	43	122	171
Remaining,	1	39	100	100

FREEDOM OF THE BLACK RACE FROM DIPHTHERIA.—In summarizing the mortality statistics of Wilmington, Del., for the year 1882, Dr. L. P. Bush, President of the Board of Health, comments upon the facts that while thirteen deaths occurred from diphtheria among the white people, no fatal cases were recorded among the colored population. "This still further confirms the opinion of the freedom of the black race from diphtheria. This resistance of that class of people to the cause of this disease has been observed and recorded in the statistics of Wilmington since the disease made its first appearance among us in 1860."

We had the curiosity to look up the statistics of some of our Southern cities on this point, and found that during the year 1881 the District of Columbia lost 102 persons by diphtheria, 78 of whom were white and 24 colored people. The District, at that time, reported a population of 120,000 white and 60,000 colored. Norfolk, Va., with a population of 11,993 white and 10,033 colored, had 28 deaths among the former and 14 among the latter from the disease in question. Charleston, S. C., with a white population of 22,712

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and a colored population of 27,287, had 15 and 10 deaths respectively. New Orleans had 69 deaths among its 158,379 whites and 11 among its 57,761 colored people. Memphis reported 21 deaths among its 18,622 whites, and 14 among its 14,971 colored population. Summing these figures, we find 211 deaths from diphtheria among 331,706 white, people and 73 deaths from the disease among 170,022 colored people. If the latter had suffered equally with the white race there should have been 109 deaths instead of 73. Although these figures show a greater mortality among the whites, they can hardly be said to sustain the idea suggested by Dr. Bush's comment.

BOARD OF HEALTH, BAYONNE, FRANCE.—A municipal Commission of Hygiene and Statistics has been organized in Bayonne. Its constitution and duties are similar to those of the City of Paris. Very precise rules are laid down with regard to the medical inspection of schools.

VITAL STATISTICS OF PARIS.—During the year 1882, there were 21,411 marriages celebrated in Paris, as follows: Between young men and maids, 17,579; between young men and widows, 1,206; between widowers and maids, 1,710: between widowers and widows, 904; between divorced persons, 12.

The births numbered 62,581, there being 31,828 males and 30,753 females, or 103.5 masculine births per 100 feminine.

The deaths numbered 58,702, the males being to the females as 116.1 to 100. The births were to the deaths as 106.6 to 100. Of the total number of deaths, 17,411 were of children under five years of age. Epidemic diseases were the cause of 7,579 of the deaths, typhoid fever being credited with 3,352, smallpox with 661, measles with 1,018, scarlet fever with 158, and diphtheria with as many as 2,390. Consumption was the cause given in 10,342 cases. There were 767 cases of suicide, 612 of the individuals being males and 155 females. The still-births registered amounted to 5,170.

RECENT MORTALITY IN EUROPEAN CAPITALS.—M. Motteroz, of the Bureau of Statistics, Paris, France, gives some interesting comparisons, formed in reviewing the mortality returns of the capitals of Europe for the first quarter of the present year. London, with its population of nearly four millions of inhabitants, shows the smallest death-rate—22.1 per 1,000 annually—and this although three epidemic diseases—measles. scarlet fever, and whooping-cough—occasioned a very considerable number of deaths during the period. St. Petersburgh, on the other hand, gives the highest mortality-rate—40.6 per 1,000 of its inhabitants yearly. Typhoid fever and diphtheria prevailed in this city with great intensity. Berlin gives a mortality-rate equal to 24.3 per 1,000 per annum. During the three months under review, croup caused 663 deaths in its population of 1,200,000. The rate of Brussels was 25.7; of Paris, 27.3; of Stockholm, 27.8; of Vienna, 31.1; and of Madrid, 36.4. The mortality in this last capital is always high. Measles, alone, was the cause of 402 deaths during the quarter, and this is regarded as an enormous mortality for a population of 400,000 inhabitants.

THE PRACTICE OF MEDICINE IN MISSOURI.—The General Assembly of Missouri has just passed a new law regulating the practice of medicine and surgery in that State, which contains the following provisions:

Every person practising medicine, if a graduate of a legally chartered medical institution in good standing, of whatever school of medicine, shall present his diploma to the State Board of Health, and upon its verification the Board shall issue its certificate, which shall be a license to practice; if not a graduate, the person practising shall be examined directly by the Board, and if found properly qualified, it shall grant a certificate to practice.

The Board shall furnish to county clerks of the several counties a list of all persons receiving certificates. If the diploma submitted be found to be genuine, the applicant shall pay to the Secretary of the Board a fee of one dollar, but if it be found to be fraudulent, or not lawfully owned by the possessor, the Board shall be entitled to collect twenty dollars from the applicant. Graduates may present their diplomas and accompanying affidavits by letter or proxy.

Every person holding a certificate from the Board shall have it recorded in the office of the county clerk of the county in which he resides, and the county clerks shall keep a register of certificates so recorded, which shall be open to public inspection.

The State Board may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and it may revoke certificates for like causes, after giving the accused an opportunity to be heard in his defence.

Any itinerant vendor of any drug, nostrum, ointment, or appliance of any kind intended for the treatment of disease or injury, or who shall, by writing or printing, or any other method, publicly profess to cure or treat diseases, injuries, or deformities by any drug, nostrum, manipulation, or other expedient, shall pay to the State a license of $100 per month, to be collected as all other licenses are now collected, and any person violating these provisions shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine not to exceed five hundred dollars, or by imprisonment in the county jail not to exceed six months, or by both.

Any person practising medicine or surgery in this State without complying with the provisions of this Act shall be deemed guilty of a misdemeanor, and punished by a fine of not less than $50, nor more than $500, or by imprisonment in the county jail for a period of not less than 30 days nor more than 365 days, or by both, for each and every offence; and any person filing or attempting to file as his own, the diploma or certificate of another, or a forged affidavit or identification, shall be guilty of a felony, and upon conviction shall be subject to such fine and imprisonment as are provided by the statutes for the crime of forgery in the second degree, but the penalties shall not be enforced until a period of six months after the passage of this bill. Provided, that the provisions of this Act shall not apply to those that have been practising medicine five years in this State.

LOUISIANA STATE MEDICAL SOCIETY.—The fifth annual meeting of the Louisana State Medical Society was held in Shreveport, April 4, 5, and 6, 1883, under the presidency of A. A. Lyon, M.D., of Shreveport. Twenty-seven new members were elected. The President, for the Society, telegraphed a greeting to the Kentucky State Medical Society, and a pledge to stand by it in upholding the National Code of Ethics. The Kentucky Society responded, and endorsed the sentiment of allegiance to the National Code, and devotion to the honor and dignity of American medicine. The following officers were elected for the ensuing year: *President*, Dr. J. P. Davidson; *Vice-Presidents*, Drs. D. R. Fox, J. C. Bickham, C. M. Smith, F. J. Allen, I. J. Newton, and R. H. Day; *Corresponding Secretary*, S. S. Herrick, New Orleans; *Recording Secretary*, P. B. McCutchon; *Treasurer*, F. M. Parham. The next meeting of the Society will be held in Baton Rouge, on the 22d of May, 1884.

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THE ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISIANA was held in New Orleans on Thursday, March 29th. Diplomas were conferred upon seventy-four candidates. The class valedictory was delivered by Dr. Stanhope Jones.

GARMENT FOR PROTECTION AGAINST CONTAGION.—The National Health Society, London, has introduced a garment made of macintosh, to be worn by persons compelled to enter the apartments of persons suffering from contagious diseases. Used in connection with a medicated cotton respirator, it is said to be a protection against contagion.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending May 5, 1883, indicate that diarrhœa, dysentery, and measles have increased, and that neuralgia, rheumatism, influenza, and consumption have decreased in area of prevalence.

Compared with the average for the month of April in the preceding six years, measles was considerably more prevalent, and intermittent fever, remittent fever, and diphtheria were less prevalent during the month of April 1883.

Including reports by regular observers and by others, diphtheria was reported present during the week ending May 5, and since, at seven places, scarlet fever at nineteen places, and measles at twenty-five places.

NOTES AND QUERIES.

IPECACUANHA AS AN OXYTOCIC.

To the Editor of THE MEDICAL NEWS.

SIR: The short assertion of Dr. Pitkin in THE MEDICAL NEWS of Feb. 3d, from *Journ. de Med. de Paris*, that ipecacuanha is an oxytocic, induces me to communicate my experience of the past week. During a case of tedious labor, primipara, I determined to administer Squibbs' fluid extract of ergot; by mistake, I took from my saddle-bags a vial of Squibbs' fluid extract of ipecacuanha; poured a teaspoon two-thirds or three-fourths full, and, in small quantity of water, had my patient drink it. Shortly afterwards, I discovered the mistake I had made, but did not administer any ergot, and concluded to await results, preparing myself for free emesis—none occurred; and, in the usual length of time, the uterus seemingly responded as vigorously to the ipecacuanha as I have ever had it to do to ergot. No vomiting took place until four or five hours after, when, on account of delayed third stage, I administered about thirty or forty minims of Squibbs' fluid extract of ergot, which was ejected almost as soon as swallowed, and vomiting occurred several times after. I do not claim that the ipecac had any effect upon the uterus—merely give you the *facts* of the case. Readers can draw their own conclusions: *Post aut Propter*.

Yours respectfully,
J. W. CANNON, M.D.

JACKSON, MO., April 30, 1883.

POISONING BY CHLORATE OF POTASSIUM.

To the Editor of THE MEDICAL NEWS.

SIR: The editorial on "Poisoning by Chlorate of Potassium," which appeared in THE MEDICAL NEWS of March 10, seemed to me to be very important. Few, if any, medicines enter so largely and generally into domestic drug supplies as chlorate of potassium. It is sold even in our confectionery stores, groceries, book stores, etc., in the form of candy, and its use is so very general that the amount of harm done by this preparation would almost equal the injury caused by opium. Few seem to understand its poisonous action, even in the medical profession, and anything which can be done to stay its wholesale use or abuse would be of great benefit to all concerned. The reaction which is now taking place, reminds me of the reaction against carbolic acid, bromide of potassium, and other drugs.

In throat affections it is most often prescribed, and especially so in diphtheria where absolutely no limit seems to exist for its exhibition. I have repeatedly noticed its injurious effects, and in one fatal case of diphtheria I attribute the result to too large doses of chlorate of potassium too often repeated. The patient seemed to be gaining rapidly until the *stomach gave out*, and in spite of every effort to control the irritability, vomiting persisted until death, which occurred thirty-six hours after this distressing symptom set in. I believe that the chlorate of potassium destroyed the tone of the stomach, and poisoned the whole system of the patient, and I confess I have never dared to use this remedy in diphtheria since then. We have a preparation of potassium chloride, very much used in Germany, which I like very much, and which I believe will soon be used in this country with great success. I am in the habit of prescribing it as follows:

℞.—Kali chlorici, ... ℥iv.
Aquæ destil., ... ℥vj.
Syr. simpl., ... ℥vj.—M.
S.—A teaspoonful or dessertspoonful every hour.

Whatever can be done to aid in sifting the good medicines from the bad, and guarding the public against poisonous dosing, is worthy of the serious concern of the medical profession.

Very respectfully, yours,
W. THORNTON PARKER, M.D.,
Act. Asst. Surgeon, U. S. A.

FORT ELLIOT, TEXAS, April 29, 1883.

EFFECT OF BROMIDE OF POTASSIUM ON CEREBRAL CONGESTION.

To the Editor of THE MEDICAL NEWS.

SIR: I notice in THE MEDICAL NEWS of April 21st, an article from Dr. Alban Kite, concerning the effects of bromide of potassium upon cerebral congestion following a dose of quinine. I would respectfully call the attention of Dr. Kite to the fact that the plan of using bromide of potassium, to prevent the unpleasant effects of quinine, is by no means new. In this portion of the South, where we "live among the fevers," and hence use a great deal of quinine, we have been in the habit for several years of either combining the bromide with quinine, or giving the quinine in hydrobromic acid, which I think is a preferable plan. I can heartily join Dr. Kite in saying that the bromide does frequently relieve the intense cerebral congestion produced sometimes by quinine, and I think it particularly adapted to children, but with them I should give hydrobromic acid the precedence. My friend Dr. Thomas M. Calley first used the bromide of potassium with quinine in Palestine, Texas, some years ago, and since that time we have all used quinine and bromide together, with considerable satisfaction. The combination is an excellent one, especially if the patient be of a nervous temperament.

Very truly yours,
J. WEBB DOUGLAS, M.D.

PALESTINE, TEXAS, April 30, 1883.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MAY 7 TO MAY 14, 1883.

BARTHOLF, JOHN H., *Captain and Assistant Surgeon.*—The extension of leave of absence granted April 3, 1883, further extended four months.—*Par. 8, S. O. 105, A. G. O., May 7*, 1883.

BILLINGS, JOHN S., *Major and Surgeon.*—By direction of the Secretary of War, to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to be held at Cleveland, Ohio, June 5, 1883.—*Par. 10, S. O. 105, A. G. O., May 7*, 1883.

FORWOOD, WM. H.. *Major and Surgeon.*—By direction of the Secretary of War, to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to be held at Cleveland, Ohio, June 5, 1883.—*Par. 10, S. O. 105, A. G. O., May 7*, 1883.

SMITH, JOS. R., *Major and Surgeon.*—By direction of the Secretary of War, to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to be held at Cleveland, Ohio, June 5, 1883.—*Par. 10, S. O. 105, A. G. O., May 7*, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL ARTICLES.

BOROGLYCERIDE IN THE TREATMENT OF DISEASES OF THE EYE AND EAR.

BY L. WEBSTER FOX, M.D.,

OPHTHALMIC AND AURAL SURGEON TO THE GERMANTOWN HOSPITAL, PHILADELPHIA.

BOROGLYCERIDE, which has drawn the attention of surgeons to its antiseptic and astringent properties, has been used by me in the ophthalmological and aural department of the Germantown Hospital for the last six months. The number of cases treated have been numerous enough to justify my recommending it as a very valuable agent in the treatment of certain ocular and aural troubles.

To Dr. Granville Faught, formerly Resident Physician, I am greatly indebted for the successful preparation of the drug, as well as to his careful attention to the patients treated, and notes made on each respective case. I refer the reader to Dr. Faught's article on boroglyceride, in the present number of this journal, not only as to the manner of its preparation, but also to his views on the drug as a therapeutic remedy. Boroglyceride, when applied to the healthy conjunctiva, produces a sharp, smarting pain, lasting several minutes, profuse lachrymation and congestion of the smaller veins and arteries, not only of the mucous surface of the lids, but of the conjunctiva covering the eyeball; this being followed by contraction of the vessels, the sclerotic becoming pearly, and cornea particularly brilliant.

It has an acrid taste, not unpleasant. Its astringent properties are made manifest by a decided puckering of the mucous lining of the mouth.

In certain chronic conditions of the conjunctiva, patients do not complain of the smarting pain at first, but after several days' use this becomes manifest.

The preparations used have contained ten per cent., twenty-five per cent., and fifty per cent. of the drug in glycerine. It is soluble in glycerine, cold and hot water.

In cases of acute conjunctivitis, with slight secretions, the following collyrium has been efficacious.

℞.—Boroglyceride, ... ʒj.
Camphor or rose water,
Distilled water, ... āā ʒj.

This can be applied either by a bit of cotton-wool or by the spray. After several applications, the congestion disappears, and the mucous surface is restored to its normal condition. In granular lids, with much thickening of the conjunctiva complicated with pannus of the cornea, a fifty per cent. solution was used. The slight purulent secretions were checked immediately; the thickened and congested condition of the conjunctiva was reduced, the vessels on the cornea disappeared rapidly, leaving it clear and transparent; but no change is observable in the hypertrophied condition of the papillæ, excepting to make them more pronounced in their outline. At this stage of the treatment, xerosis conjunctivæ is not unfrequently produced. The conjunctivæ are free from moisture, and the patient has sensations of heat and dryness in the eyes, which are distressing. The treatment should be discontinued, and a solution of nitrate of silver, five or ten grains to the ounce, substituted; one application daily should be made to the parts, until the normal secretions are restored; then the sulphate of copper, in substance, is to be applied once daily to the now reduced trachoma. Under this treatment the granulations disappear very rapidly, the lids become smooth, and, where there is pannus, the cornea regains and retains its transparency.

One case of membranous conjunctivitis (pseudo-membranous conjunctivitis of Tweedy, see *Lancet*, of January 7, 1882), in a child of ten months, was brought to me. The lids were swollen and œdematous, the membrane could be taken off in shreds, the conjunctiva ecchymosed, and corneæ of a decided opaline tint. The disease was—according to the history given by the mother—only of twenty-four hours' standing. Cold dressings, with an application of boroglyceride—fifty per cent. solution—fifteen to twenty drops between the lids, gently raising them to allow the fluid to permeate the parts, were ordered; the iced dressings to be kept on the lids constantly, and the boroglyceride applied once every hour. The acute condition was soon allayed, no membrane forming after the fifth application of the drug. At the beginning of the third day, the case was treated with a ten per cent. solution; and at the end of a week the patient was discharged, cured.

In all catarrhal affections of the eye the drug is valuable, particularly so in ophthalmia neonatorum. It arrests the secretions, reduces the congestion and swelling, also disinfecting the parts, thereby changing the character of the pus from a whitish-yellow or a greenish-yellow to a serous discharge. In several cases, where the treatment was omitted for twenty-four hours, the discharge became purulent again. One case which had been treated by such domestic remedies as mother's milk, tea leaves, etc., for two weeks was in a deplorable condition when placed under my care. The cornea of the left eye was gone, the right in a stage of ramolissement. The patient recovered, a slight nebula marking the place in the right eye where the cornea had commenced breaking down, the left globe shrinking to the size of a pea. My assistant, Dr. Alexis I. Smith, has kindly placed at my disposal the notes of one of his cases of ophthalmia neonatorum treated in private. As his results have been confirmed by several colleagues to whom the boroglyceride was given, I quote Dr. Smith's case in full.

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"On the 20th of January I was called to see T., æt. five weeks, with the following history: The mother said that two days after birth she noticed a purulent discharge from the baby's eyes, with great swelling of the lids; she thought the child had caught cold from a draughty window, and would get well by itself. She was attended during her labor by a neighbor, and had no physician. She had no leucorrhœa at the time of her confinement, nor at any time previous was there any discharge to her knowledge. When I saw the baby the eyelids were enormously swollen and closed, the edges encrusted with dry pus, and when the eyes were opened pus escaped freely. It was impossible to see the condition of the cornea, owing to the extreme swelling and the restlessness of the child. The infant was exceedingly emaciated, bottle-fed, and very constipated. I ordered the mother to put one drop of a fifty per cent. solution of boroglyceride in glycerine in each eye every four hours, to bathe the eye freely every hour with warm water, and give minute doses of calomel every hour until bowels were moved. The next day the discharge was very much diminished and the swelling somewhat so, but not enough to allow an examination of the cornea. On the following day, however, I saw that the corneæ were bright and clear, the swelling very considerably reduced, and the discharge, which was altered in character, having become more serous. On the fifth day the discharge was almost entirely absent during the day, being noticed most in the morning. The lids were anointed night and morning with cold cream, and after the third day the boroglyceride was ordered three times daily.

"As the child seemed to be doing well, I did not see it again for four days, when I found that, owing to my directions having been neglected and the treatment not having been carried out, the discharge had returned almost as bad as when I first saw it; insisted on having the eyes washed every hour. I ordered boroglyceride every three hours during the day. Being prevented by sickness from seeing the child for a week, at the end of that time I found the disease cured."

My treatment in severe cases is to apply five to ten drops of a fifty per cent. solution of the drug every hour, bathing the eyes first with tepid water to cleanse them properly; after a cessation of the discharge a weaker solution is used, or the stronger is applied at longer intervals. The eyelids may be anointed with vaseline at night."

Ulcers of the cornea. It has been observed long ago that phlyctenular ophthalmia is one of the most troublesome and intractable diseases that the ophthalmic surgeon has to deal with. The principal cause of the extreme tediousness of this disease is the strumous diathesis. In cases where this condition existed the local affection was slow to respond to the boroglyceride; but when the general system was improved, the eyes recovered rapidly.

In deep central ulcers of the cornea, which are always slow to respond to the usual remedies, the boroglyceride has proved one of the best remedies in my hands.

In vascular keratitis we have associated an inflammation of the conjunctiva. The sulphate of atropia, by dilating the pupil and paralyzing the ciliary muscle, checks, to a degree, the blood supply, acting also in many cases as an irritant to the already inflamed conjunctiva, also aggravating the primary lesion. To correct this and retain the atropia, I have combined it (grs. iv. to ʒj) with a fifty per cent. solution of boroglyceride, applying this combination thrice daily. The bloodvessels on the cornea disappear rapidly, and the patient is relieved of the distressing symptoms.

As a dressing for wounds in ophthalmic surgery boroglyceride is valuable, acting as an astringent, antiseptic, and deodorizer, thereby allaying inflammation, checking discharges, and keeping wounds sweet.

Four cases of cataract wounds were dressed with a twenty-five per cent. solution of boroglyceride, to which had been added sulphate of atropia, grs. iv.–ʒj. Three cases made a perfect recovery, no unfavorable symptoms arising at any stage of the healing process. In the fourth case the result was negative. This patient was operated upon two years ago for cataract in the right eye; panophthalmitis followed, and the eye was lost. A preliminary iridectomy was performed at this time in the left eye. On the 4th of December, 1882, a successful modified Græfe's extraction was performed. Fingers were counted immediately after the operation. On the evening of the fourth day after the extraction some pain was felt by the patient. Slight swelling of the conjunctiva was noticed by Drs. Müller and Radcliff, who had had charge of the case. On examining the eye the following morning, a faint yellowish reflex was noticed in the vitreous. The wound had closed perfectly. Antiphlogistic remedies used—negative results followed. In this case the vitreous was the primary seat of inflammation, for at no time was there any discharge.

In diseases of the ear, the drug was limited to the treatment of purulent discharges, both acute and chronic. The results obtained were very satisfactory, particularly so in odorous discharges, as the offensive smell was dispelled after three applications. A fifty per cent. solution in glycerine was applied in the following manner: The secretions thoroughly removed by dry cotton; the patient's head placed in a horizontal position—when pain was present a few drops of tinct. opii and belladonna, equal parts, applied first—the meatus filled with the boroglyceride, and the orifice closed with cotton; this process repeated every six hours in acute cases, in chronic troubles every twelve hours. Good results were obtained in six to twelve days.

I may mention that my friend, Dr. Faught, has been successful in making gelatine disks for ophthalmic purposes, containing ten, twenty-five, and fifty per cent. of boroglyceride. In certain discs he has also succeeded in combining a myotic, mydriatics, and several of the astringents with the same. They dissolve readily in the secretions of the conjunctiva.

The results of our investigation as to the therapeutic value of boroglyceride in ophthalmic and aural diseases may be briefly summed up as follows:

In conjunctivitis, catarrhal affections of all kinds,

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ophthalmic neonatorum, ulcers of the cornea and conjunctiva, and wounds, it has proved more effective than the usual remedies applied.

In blepharitis, granular lids, pannus, nebulæ, pinguecula, pterygium, and episcleritis, it is an adjuvant of great value.

1306 WALNUT STREET.

BOROGLYCERIDE.

BY G. GRANVILLE FAUGHT, M.D.
OF PHILADELPHIA.

BOROGLYCERIDE, lately patented both in this country and Great Britain under the name of "Barff's Preserving Compound," is deserving of some attention from the medical profession as an antiseptic, and also on account of its astringent properties. Its inventor designs it as a preservative for meats, milk, and other food products, for which, from repeated trials, it seems well adapted. In medicine its use is as yet in its infancy, the literature of the subject being confined to a few scattered writings in English and Continental journals.

The present article is designed to merely call attention to the substance, the method of its preparation, and some of the uses to which it is specially applicable.

As its name implies, boroglyceride is a combination of boric acid and glycerine, the proportion being that of their atomic weights, thus:

Boric acid.		Glycerine.		Boroglyceride.		Water.
BO_3H_3	+	$C_3H_5(OH_3)$	=	$BO_3C_3H_5$	+	$(H_2O)_3$
62		92		100		54

The mixture of acid and glycerine is to be heated until the three parts of water are driven off. Especial care is to be taken to maintain the proper temperature, for if heated too highly the glycerine will decompose, while pungent fumes of *acrolein* will be given off, and the resultant will be dark colored and possess irritant properties. It is better to expel the water by gentle and long-continued heat than by boiling it violently.

Boroglyceride is a light-amber colored, vitreous substance, without odor. It is soluble in glycerine in all proportions, sparingly so in hot water (about ten per cent.). The taste is warm and somewhat astringent. The form in which I have been accustomed to use it has been a fifty per cent. solution in glycerine; a very viscid preparation.

During the last six months I have used it largely, both in hospital and private practice, as a local antiseptic astringent. I have never given it internally myself, but it is claimed by its inventor to be innocuous.

As a surgical dressing boroglyceride holds an important position, serving to allay inflammation, check excessive discharge and sloughing; it is a decided antiseptic, and acts as a deodorizer. Added to poultices (fifty per cent. solution) it serves to keep them moist and sweet for a long time; those who have had charge of a surgical ward during the summer months will know how desirable these points are. Using the fifty per cent. solution, conjoined with sponge-grafting, I have succeeded in healing several ulcers that had defied every other method of treatment.

As a vaginal application for leucorrhœa and subinflammatory conditions of the cervix, I have used either the cotton suppository, or, what is much better, the oakum suppository of Emmet. A piece of oakum of sufficient size is spread out, and on this about half an ounce of the fifty per cent. solution is poured; the oakum is then folded around it, and a string attached which enables the patient to remove it herself. Such a suppository will remain in the vagina, perfectly sweet and clean, for twenty-four hours. In this class of cases I have also used gelatine pessaries containing twenty-five to seventy-five per cent. pure boroglyceride. These may be inserted by the patient herself. The results obtained by this method of treatment are surprising; in a large number of cases the discharge is stopped by one application.

In specific urethritis in the male, a limited trial has given good results. I used gelatine bougies containing twenty-five to fifty per cent. of pure boroglyceride. These bougies are conveniently made by using a druggist's pill-board; after *slightly* greasing the two sets of grooves with cosmoline, they are covered with the hot solution of gelatine and boroglyceride, and then put together; when cold, the rods are easily removed, and can be united to form any length by gently warming their ends with a spirit-lamp. A single length would be suitable for introduction into the uterine cavity.

Dr. W. A. Jamieson (*Edinburgh Med. Journ.*, Dec. 1882) reports very satisfactory results from the treatment of diphtheritic sore-throat with boroglyceride. In the treatment of pharyngitis and tonsillitis, I have found it very satisfactory.

My thanks for the gelatine preparations are due Mr. C. H. Gubbins, Pharmacist, N. E. cor. 15th and Race Streets.

142 N. 15TH STREET.

MEDICAL PROGRESS.

CAFFEINE IN CARDIAC AFFECTIONS. — HUCHARD, after reporting an interesting case of asystole cured by caffeine, gives a series of conclusions deduced from cases which he has studied. 1. In certain cases caffeine is superior to digitalis, on account of its rapid action, diuresis being almost produced in twelve or twenty-four hours. 2. If caffeine diuresis comes on rapidly, it rarely attains the proportion of digitaline diuresis, and does not exceed three or four quarts per diem. 3. Caffeine is superior to digitalis on account of its innocuous action, which results from its easy and rapid elimination. Cumulative and toxic effects are rare, as is gastric intolerance. 4. Caffeine only produces gastric intolerance when the liver is diseased, as in cirrhosis. 5. If digitalis produces bad effects, or is powerless in cases of fatty degeneration of the heart, caffeine will often be of great benefit. 6. It appears to be of no service in albuminuria of non-cardiac origin. 7. As a rule, caffeine is not given in sufficiently large doses; grs. iv–viij should be given at the beginning of the treatment, gradually increasing to grs. xij, and up to grs. xv, xxx, or even xlv. It should be taken three or four times during the day.

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8. Though it has been used subcutaneously, it is doubtful if it is so efficacious when given in this manner as by the stomach.—*Revue des Sciences Méd.*, April, 1883.

A RAPID METHOD OF DEMONSTRATING THE TUBERCLE BACILLUS WITHOUT THE USE OF NITRIC ACID.—DR. HENEAGE GIBBES, in a paper on this subject, says: The following method, which I have used for some time with great success, will, I think, prove useful to those requiring the demonstration of the tubercle bacillus for diagnostic purposes in a rapid manner. The great advantage consists in doing away with the use of nitric acid. The stain is made as follows: Take of rosanilin hydrochloride two grammes, methyl blue one gramme; rub them up in a glass mortar. Then dissolve anilin oil 3 c.c. in rectified spirit 15 c.c.; add the spirit slowly to the stains until all is dissolved, then slowly add distilled water 15 c.c.; keep in a stoppered bottle. To use the stain: The sputum having been dried on the cover-glass in the usual manner, a few drops of the stain are poured into a test-tube and warmed; as soon as steam rises pour into a watch-glass, and place the cover-glass on the stain. Allow it to remain for four or five minutes, then wash in methylated spirit until no more color comes away; drain thoroughly and dry, either in the air or over a spirit-lamp. Mount in Canada balsam. The whole process, after the sputum is dried, need not take more than six or seven minutes. This process is also valuable for sections of tissue containing bacilli, as they can be doubly stained without the least trouble. I have not tried to do this against time, but have merely placed the sections in the stain and allowed them to remain for some hours, and then transferred them to methylated spirit, where they have been left as long as the color came out. In this way beautiful specimens have been made, without the shrinking which always occurs in the nitric acid process.—*Lancet*, May 5, 1883.

SUBCUTANEOUS INJECTIONS OF RESORCIN IN ERYSIPELAS.—BOGUSCH has employed resorcin hypodermatically in four cases of erysipelas, in the form of an aqueous solution, five per cent. The injections were made along the erysipelatous line at distances of about one-half inch apart, the needle being directed toward the diseased structures. In the four cases, 29, 36, 67, and 70 injections were made, no other agent being used. The results were a rapid fall of temperature and arrest of the disease.—*Revue des Sciences Médicales*, April, 1883.

RESECTION OF THE TARSUS.—DR. LAUENSTEIN, of Hamburg, exhibited a patient before the Twelfth Congress of the German Surgical Society, whose whole tarsus, with the exception of the astragalus and a portion of the calcaneum, he had resected. Two incisions were made, one on each side of the foot. The result was far better than could have been expected; the foot was a little less than one-half inch shorter and slightly smaller in circumference than the other. The limp in his gait was scarcely perceptible, and he could easily walk for one-half an hour. There was good reproduction of bone.—*Berliner klin. Wochenschr.*, April 23, 1883.

ADONIDINE.—This new product has been recently obtained by CERVELLO from the *Adonis vernalis*, a plant of the ranunculaceæ family. Cervello succeeded in extracting a glucoside from the plant containing the whole active principle, and to which he has given the name *Adonidine*. Adonidine, which is most easily obtained pure from the tannate of adonidine, is an amorphous, colorless, odorless mass, very bitter, very soluble in alcohol, less so in ether and water. It is precipitated from its solution by tannic acid, but redissolves on the addition of an acid. Brought in contact with an acid, a substance is produced which is soluble in ether. The physiological effects of adonidine are in all respects similar to those of digitaline, but much more energetic, gr. $\frac{1}{250}$ being sufficient to arrest the heart of a frog. From experiments on dogs, rabbits, and frogs, Cervello concludes that adonidine has no cumulative effects, and on this account is preferable, as a therapeutic agent, to digitaline.—*Revue des Sciences Méd.*, April, 1883.

THE CAUSE OF HYSTERICAL TYMPANITES.—EBSTEIN regards the tympanites which develops so rapidly in an hysterical attack, as due to an incontinence of the pyloric sphincter, and when air is swallowed during an attack it passes through the stomach directly into the intestines. He experimented upon two cases by giving an effervescing mixture, and found that the phenomenon was markedly increased immediately after it was swallowed. He regards this as a pathological condition; Küssmaul, however, asserts that when the stomach is empty, relaxation of the pylorus is the normal state.—*Centralbl. f. klin. Medicine*, March 31, 1883.

INJECTIONS OF IODINE IN MALIGNANT PUSTULE.—PROF. RICHET recommends the subcutaneous injection of tincture of iodine in malignant pustule. He has used as much as 100 to 120 drops at one injection, and insists that they do not produce bad effects in the patients, and have a powerful influence over the disease.—*Revue des Sciences*, April 21, 1883.

BLOOD-GLOBULES IN PURULENT PLEURISY. — The observations of GASEL confirm, in a measure, the existence of leucocytosis in cases of suppuration. He thinks that an enumeration of the globules is a valuable diagnostic sign in empyema. He takes, as a term of comparison, the results given by Graucher, that in the normal state the number of red globules is between five and six million per cubic centimetre; of the white, between three and nine thousand—the relation being $\frac{1}{1200}$ or $\frac{1}{1800}$. In four cases of empyema, the relation was $\frac{1}{105}$; $\frac{1}{300}$; $\frac{1}{104}$; and $\frac{1}{130}$.—*Revue des Sciences Méd.*, April, 1883.

NITROUS OXIDE AS AN ANÆSTHETIC.—M. PAUL BERT has recently read a note before the Academie des Sciences of Paris on the anæsthetic properties of nitrous oxide. The difficulties attending the production of anæsthesia with a mixture of nitrous oxide and air under certain barometric pressure, are well known. The pure gas anæsthetizes, but tends to produce asphyxia if prolonged for a certain time; mixed with oxygen it does not asphyxiate, but neither does it anæsthetize. In spite of the danger of asphyxia, there has been a ratio of only three or four accidents per thousand cases in which it has been used by dentists. It cannot, then, be considered as a dangerous substance. It should not be employed intermittingly, as has been done in America. Instead of using first pure nitrous oxide and then pure air, M. Bert uses a mixture of oxygen and nitrous oxide in proportions very similar to those of the air which we breathe. The experiments were made on dogs. The animal first respired pure nitrous oxide for a minute, then the mixture for five or six minutes, and so on until complete anæsthesia occurred, which was prolonged for half an hour without bad effects. He thinks that further experiments are needed before it should be used on man, though it would seem that the results would not be less satisfactory.—*Revue des Sciences*, May 5, 1883.

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SATURDAY, MAY 26, 1883.

SENILE GANGRENE.

SENILE gangrene is one of the most painful occasional accompaniments of advanced life. It is almost equally painful to the patient, his friends, and the doctor—the one a most acute sufferer, the others with their deepest sympathies aroused, the last compelled to be a spectator of ravages he can neither avert nor combat, but only alleviate. Fortunately for all, it is not a very common disorder.

By far its most frequent cause is calcification or other similar changes in the arteries, whereby their calibre is diminished and their walls roughened,—conditions of themselves most favorable to the formation of thrombi, which extend often over a very wide territory; and when to these are added the natural enfeeblement of the heart from old age, the wonder rather is not that it ever should occur, but that so many of the aged escape.

Two peculiar forms exist, distinguished sharply by their etiology from the typical variety; the one a complication of diabetes mellitus, and the other a result of ergotism. The pathology of the former is obscure. It certainly does not arise from any such arterial changes as those already alluded to, and though the pulse is enfeebled, yet the heart is but slightly altered, if at all, and apoplexy, so frequently seen in Bright's disease with its arterial lesions, is rare in diabetes. Most probably the blood itself is at fault. Either it is impoverished to an extent incompatible with proper nutrition, especially on the outskirts of the vascular system, or from loss of water and other changes its coagulability is increased to such a degree as to favor spontaneous thrombi. Both of these causes would be still more potent if the heart be weakened even in a small degree, and very probably all these causes combine in not a few cases. Certain it is that the chilliness of the surface, the dryness of the skin, the frequent boils and carbuncles, and the diminished cutaneous sensibility, all point to such natural and plausible explanations.

The other form—that which follows ergotism—is due, undoubtedly, to vascular spasm by contraction of the muscular coat of the arteries, for it is upon the involuntary muscular fibres whether in the uterus, the intestine, or the arteries, that ergot expends its force. This form of gangrene has swept off its victims by thousands where it has arisen from eating the diseased rye as bread. Then both from the quantity eaten and the continuous use of the fungus, the amount of ergot ingested must be very large indeed—vastly in excess of any probable, and almost of any possible, amount given medicinally. Fortunately in this country, both from the general well-being of the people and the very general use of wheat for bread, this is, we believe, an unknown disease.

But the question often arises in the minds of physicians as to the possibility of ergotism and its resulting gangrene, following the medicinal use of the drug. This is more a theoretical possibility than a practical fact. It is doubtful, indeed, whether there have been any cases of gangrene following the medicinal use of ergot. We have used Squibb's solution hypodermatically (a filtered solution in water of the inspissated fluid extract and six times the strength of the crude drug) in forty-minim doses on alternate days, for from three to five months; Dr. D. H. Kitchen recommends its use in epilepsy for months; and Dr. H. C. Wood, in congestion of the spinal cord, gives an ounce of the fluid extract three times a day, all without evil results. The prodromic symptoms are sufficiently clear to warn us if by any possibility evil should be threatened. Marked chilliness, formication, and pain in one or both feet or the fingers, pain in the back, muscular cramps, nausea, giddiness, weak pulse, dilated pupils, and disturbance of the uterine functions announce the danger, and the remedy should be instantly discontinued and heat and stimulants be used. Indeed, fortunately, the diseases for which its continued use is demanded are such, that an occasional intermission of a week or a month in its use, is not only feasible, but wise. The fact that the gangrene begins in the deeper tissues and works out to the skin may mask the trouble, but other symptoms will probably exist to put us on our guard.

It must not be forgotten that ergot has been one of our most valuable remedies in diabetes. Gangrene, if it follow either the disease or the remedy,

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is of course even more possibly a sequel if the two conditions coexist. Usually diabetic gangrene differs in its course from the ergotic form, and begins with a small ulcer, from which it spreads phagedenically, or it may follow a blister or a boil. But the cases of gangrene, in which these two possible causes have been combined, are so few that the character of the local manifestations and the possibility of differentiating the two causes have been as yet insufficiently studied. We should, therefore, welcome the report of every such case as a valuable contribution to our knowledge. Indeed, it is only a score of years since attention was drawn to the coexistence of gangrene and diabetes, and it is, therefore, no wonder that it has not yet received all the attention it deserves.

The question of operative interference in senile gangrene is as yet unsettled. The condition of the arteries, or of the blood, makes the prognosis unfavorable, for the causes of the gangrene are not local but general. Hence, if amputation be done the disease is apt to return in the stump. But in those cases in which a distinct, well-defined, and stationary line of demarcation forms the prospect is more hopeful. Several cases have been reported of late years, in which the result has been a happy one, and in this our personal experience coincides. But sufficient time should be given to ensure the fact that the natural limitations of the gangrene have been reached.

THE SOCIETY FOR THE PROMOTION OF HUMAN SUFFERING.

SUCH it is, and such it ought to be called. The humane but misguided women and men who have lately organized the American Anti-Vivisection Society in this city are the victims of a sentiment, laudable in itself and when restricted to its proper limits, but which has so far led them astray that, unconsciously and unintentionally, if they succeed, they will actually promote human suffering, and shorten many human lives. And not only will humanity suffer, but the very brute creation of which they are the supposed champions. The splendid and beneficent researches of Pasteur, by which the lives of thousands of animals are saved every year, could not have been made but for vivisection; and the possibilities of incalculable good to the human race in the future prevention or cure of scarlet fever, diphtheria, measles, and other such zymotic diseases, and even of consumption, that are suggested by the researches of Pasteur, Koch, and others would have no existence. The hopes which these investigations have aroused, it is true, may prove delusive, but, on the contrary, they may be realized. We seem to be at least on the right road, thanks to vivisection.

These earnest but mistaken people are not of the kind to hide their light under a bushel. They "mean business." They are active, energetic, liberal; and, undaunted by former defeats, they mean to succeed—if they can. They are using every means at their command. Public meetings furnish a ready method for disseminating ideas to many people at once, not only to the audience of the evening, but also to the entire community through the newspapers. Pamphlets are being distributed broadcast asking for money and influence, and telling most dreadful tales of the cruelties of the vivisectionists; and even during the late session of the Pennsylvania State Medical Society, a communication from the Anti-Vivisection Society was presented. Its tone was respectful, and very properly it was referred to a committee to report upon it at the next meeting. We trust that the report will be an able, calm, and careful presentation of the facts, and will show unmistakably the advantages of the scientific and exact methods of research by experiments on animals as applied to surgery, physiology, pathology, therapeutics, etc. As undoubtedly the Society will extend its operations to other State societies, let this report be a solid foundation upon which they may build.

We regret especially to see among the pamphlets so freely distributed by the Society, one by Mr. Lawson Tait. Unlike the Society here, which masks its ultimate purpose of abolition under the present movement for regulation only, Mr. Tait boldly says it ought to be put an end to "without any kind of reserve whatever." The paper is well written, as is all that Mr. Tait publishes, but not only does he assume that he alone is right in matters really still unsettled, but he astonishes us by some of his statements. He claims that evolution, if it be admitted, clothes the lower animals with *equal* rights with man; that vivisection "can be discussed by an educated layman, as well, perhaps better than by medical men;" that Harvey is claimed as the discoverer of the circulation only by reason of "insular pride;" that such "wholesome scepticism concerning drugs has been introduced by the medical schism of homœopathy; that he looks upon all new drugs with great suspicion;" whereupon he declares that chloral and carbolic acid have done more harm than good, and physostigma is of no practical service; that vivisection has done nothing of value in the surgery of the arteries; that Syme and Ollier, in their subperiosteal surgery, "were only attempting to establish what had long been proved;" he throws grave doubts on the value of vaccination, denies the value of Pasteur's researches, and approves of Taylor's condemnation of all experiments as to poisons, and "particularly those which are directed towards the discovery of an antidote to snake-bite." He had

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better read Weir Mitchell and Reichert's recent researches. His ideas on these subjects are enough to prove to "Dr. Bowditch of New York," whom he cites, or to any other intelligent *medical* man, the want of confidence that must attach to all his other statements. His new-born zeal has warped his judgment. He has always been apt to jump at conclusions, and his general unreliability is in this instance conspicuous.

One of the strongest arguments (as distinguished from sentiment) that influences the general public, is the moral one—that the Creator cannot so have organized His government as to allow one of his creatures to derive benefit from the torture (as they are pleased to call it) of another. Yet they would unhesitatingly ride a horse to death to get a surgeon in case of serious hemorrhage; or in shipwreck, "torture" animals by tossing them overboard to drown unpitied, if by so doing they could save their own lives. And what is a just war, but the most terrible example of such vicarious suffering in man himself? It is passing strange that those who use such an argument forget that, excluding vivisection, the only other means of progress in medicine is by the lessons we learn from the prolonged torture of human beings by disease; the only method available by which to study the action of drugs by experiments on these poor sick folk. Surely if we can substitute a few of the lower animals for many men in such a case, we ought to do so; and if Mr. Lawson Tait and a few more on the one side say we cannot do so, and ten thousand better men on the other say we can, any judicial mind in balancing testimony must yield to the greater weight of authority.

And what saith the Scripture, if its authority be desired? "Thou madest him to have dominion over the works of thy hand; thou hast put all things under his feet; all sheep and oxen; yea, and the beasts of the field, the fowl of the air, and the fish of the sea, and whatsoever passeth through the paths of the seas."

TANNATE OF CANNABINE.

THIS product of Indian hemp has been lately used by FRONMULLER, with distinct advantage as a hypnotic. Although most of our readers are doubtless familiar with this fact, it may be useful to lay before them some recent contributions to our knowledge of the subject.

The tannate of cannabine is a yellowish-brown powder, insoluble in water and in ether, but soluble in alcohol; it has but little taste, somewhat like tannin, and no odor. Fronmüller reports having used it 57 times in hospital and 6 times in private parctice, in 21 men and 42 women. Of these subjects, 40 suffered from pulmonary tuberculosis, 4 from abdominal tumor, 3 from chronic bronchitis, 2 from lead colic, 1 from acute pneumonia, 1 from psychical troubles, 3 from alcoholism, 4 from mercurialismus, 2 from asthma, 1 from perimetritis, and 1 from abdominal neuralgia. All of these had taken more or less morphia subcutaneously. Without entering into details, it will suffice to give the results, which are the more satisfactory since the remedy was used in so many morbid states.

Fronmüller concludes that the tannate of cannabine is a hypnotic of the first importance, and is free from disagreeable effects, not causing intoxication or inducing constipation. The doses given ranged from one to fifteen grains.

THE NEW YORK CITY HEALTH BOARD.

MAYOR EDSON, of New York City, has nominated Professor Charles F. Chandler, of Columbia College, as Health Commissioner and President of the City Board of Health, and this nomination has been rejected by the Board of Aldermen by a vote of thirteen to ten, those voting for its rejection being eleven Tammany Hall Democrats and two Republicans.

The cause of the rejection was solely due to the desire of the Tammany managers to secure the office for one of their own men, and not to any special hostility to Prof. Chandler. As the appointment is for six years, at a salary of $5,000 per year, and as the holder can control a number of subordinate appointments, it will be seen that, from a politician's point of view, it is worth fighting for.

The rejection of Prof. Chandler, who has held this office for ten years, and done much good work in it, has given rise to great dissatisfaction among the leading business men and property owners of the city, and a petition, signed by about three thousand such gentlemen, requesting Prof. Chandler's confirmation, has been presented to the aldermen through the Mayor, but with no effect. Thus far, the Mayor has not sent in any other name, and until he does so, we believe that Prof. Chandler continues to hold the office.

When the magnitude of the interests involved in this appointment is considered, in connection with the fact that unusually great discretionary powers have been conferred upon the New York City Board of Health because of the confidence felt by leading citizens in the knowledge and honesty of its members, and more especially of its President, and when, on the other hand, the contemptuous indifference displayed by the aldermen to the recommendations and wishes of the best men in the city is noted, it is enough to discourage the most enthusiastic advocate of municipal sanitation.

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It is to be hoped, however, that the Mayor will remain firm, and prevent the effort which is being made to subordinate the health interests of a great city to the pecuniary needs of half a dozen politicians.

PROVING ONE'S OWN TESTAMENTARY CAPACITY.

THE new law of Michigan seems based on marvellously good common-sense, and will avoid a deal of annoying *post-mortem* litigation over wills by establishing, *ante mortem*, the testamentary capacity of the testator.

It provides that the testator may go into court, giving notice to all concerned, and have his own will probated. Any doubt as to his sanity must be settled then and there. Nor will the opinion of any supposed heir be warped by a question as to his personal interest, for the contents of the will need not be divulged. The only question is whether the testator is mentally fit to make a will. What flaws our legal friends may find in the method, we do not know, but it certainly commends itself to the common mind as a most excellent way of avoiding trouble and unseemly conflicts in expert testimony.

THE Governor of New York, notwithstanding the protests of the New York County Medical Society and of the advisory council of physicians who support the New Code, has signed the bill which decides the legality of the incorporation of the United States Medical College. The State Supreme Court recently rendered a decision adverse to the charter; but this bill, which has now become a law, settles the question also of the legality of all the diplomas which have hitherto been granted by the College, and its M.D.'s become "legally qualified practitioners" within the meaning of the New York Code, and as such are entitled to be met in consultation by its supporters. It will be interesting to watch the effect of this professional recognition upon the business of duly chartered diploma mills.

THE Fifth Annual Congress of the American Laryngological Association which has just closed, and a full report of the proceedings of which will be found in another column, marks an era in the history of laryngology in this country. The papers read covered a wide range of subjects. They were of unusual interest, and elicited general and very instructive discussions. The meeting was well attended by members from all sections of the country, and much of the credit of its success is due to the admirable manner in which all the details of the meeting were elaborated by the executive management. It is therefore not surprising that it was determined to meet next year again in New York.

SOCIETY PROCEEDINGS.

MICHIGAN STATE MEDICAL SOCIETY.

Eighteenth Annual Meeting, held at Kalamazoo, May 9 and 10, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Eighteenth Annual Session of the Michigan State Medical Society convened in Kalamazoo, at 10 A.M., May 9, 1883. The attendance was larger than at any previous session.

MAY 9TH.—FIRST DAY.

The *President*, DR. GEO. W. TOPPING, of De Witt, called the meeting to order.

HON. E. W. DE YOE, President of the Village, then extended a cordial welcome to the members of the Society.

THE EXECUTIVE COMMITTEE

reported through DR. FOSTER PRATT, *Chairman*, that invitations had been received from Superintendent Palmer, of the Michigan Asylum, for the Society to visit the institution on Thursday; and from the village authorities to visit the municipal establishments of the place.

The *Secretary*, DR. RANNEY, then read his report.

DR. SMART, the *Treasurer*, then rendered his report, showing an unexpended balance of $438.26.

DR. WM. BRODIE, of Detroit, read a paper on

ANEURISMAL TUMORS OF THE SCALP,

describing a case occurring in a woman, æt. 47, who fell upon the walk striking the back part of her head, and in a few hours felt a small lump on the left side of the upper portion of the occipital bone, which gave her some uneasiness, and which she ascribed to the fall. The swelling increased to the size of a goose egg, and was painful. Other small tumors appeared on the left side of the head, the largest on the upper and posterior portion of the parietal bone. On exploring with a trocar the largest tumor, it was found to contain arterial blood. A distinct bruit could be heard, synchronous with that of the heart, and the small tumors developed the same sounds.

A bistoury was passed into the tumor, when the blood poured out *per saltum*, as though an artery had been opened. This confirmed the diagnosis for this tumor as well as the rest. The wound was then closed. On the second day a violent attack of erysipelas took place, so severe that for a few days her life was despaired of, as the inflammation extended over the whole scalp and face. She, however, recovered from the erysipelas, but without any beneficial change in the character of the tumors, as hoped for from the inflammation and suppuration.

Dr. Kaiser was with him in the case, and they discussed the propriety of either ligating the occipital, the temporal, or the external carotid arteries, but in view of the free anastomosis of these arteries and their branches, also the character of the arterial structure as evinced by the peculiarity of the heart's action, and of the anastomosing arteries of the scalp, as manifested in the formation of smaller tumors, not directly caused by the primary injury, besides the immediate danger of both carotids being ligated at the same time, ligation was deemed inadvisable. Pressure was considered, but was dismissed as impracticable in the case of the large tumor. Electrolysis was suggested, but the patient declined, for the present, any further interference. No pulsation could be felt in any of the tumors. The authorities which they had been able to consult

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gave them but little information as to the proper treatment of the case.

The SECRETARY announced the names of sixty-six new

APPLICANTS FOR MEMBERSHIP.

The PRESIDENT referred the applications to the Committee on Admission, and requested the applicants to personally appear before the Committee.

AFTERNOON SESSION.

President TOPPING called Vice-President S. S. French to the chair, and then delivered

THE ANNUAL ADDRESS.

He spoke of the supernaturalistic ideas prevailing, now in one form, and again in another, which have clung to the science of medicine. Men who in every other respect are men of learning and good judgment, here, of all other places, seem to lose their commonsense. The more of mystery about a man, or a drug, or a mode of treatment, the more does it develop this latent superstition, and hence it is that so many find it to their interest to violate our Code of Ethics, and to indulge in the myriad deceptions of quackery.

He then referred to the important work which had been accomplished by the State Board of Health in giving to the public their circulars and other documents in reference to the causes of disease, and how to prevent them. There could be little doubt that the ravages of scarlet fever, smallpox, and diphtheria had, by these means, been greatly diminished.

DR. TOPPING then called attention to the overstocking of the profession. He said: "Of the 585 people which an equal distribution would allot to each physician, only a very small percentage, are very likely to become paying patients to him, even if they should be so unfortunate as to need to employ him; therefore, many physicians will necessarily have to seek other employment for support; after having spent their time and means in acquiring a profession by which they had hoped to make a living. The cheapening of a professional education through State support allures many young men into the profession of medicine, who would otherwise have entered into some other avocation more beneficial both to themselves and the public. It must be evident to all, that this country is already overstocked with physicians, therefore it cannot be necessary to tax the people to produce a more redundant supply. Our State medical schools are among the most active agents in producing this oversupply of physicians. Yea, more, by means of the hospitals under their charge and State support, they are enabled to offer cheaper medical and surgical treatment than can be proffered by the general practitioner, who cannot resort to taxation to make good his exhausted finances. The State Medical School is a materfamilias who gives the world a numerous progeny, and then does her best to cut off and destroy their means of support. The University Hospital is filled with patients who go there through economic considerations, many of them being abundantly able to fee a physician at home, and would do so were not cheaper terms offered them at Ann Arbor. These hospitals are extensively advertised at public expense, and individuals from far and near are induced to abandon their home physicians for the more advantageous terms, which hospitals under State support are enabled to offer them."

The President then referred to the relations existing between the profession and the medical department of the University of Michigan. That there are evils existing in the medical department of the University, which need correction, he believed to be evident to all fair-minded impartial men. To the end that something may be done to correct these evils, and to bring the medical school of the University in proper and profitable harmony with the medical profession, he ventured to offer certain suggestions for consideration.

The address elicited an animated discussion, and objections were made to having that portion of it relating to the University referred to the publication committee. On motion of DR. PRATT, this portion was referred to a special committee, consisting of Drs. Andrews, J. H. Jerome, and F. M. Oakley.

DR. J. C. LUNDY, of Detroit, read some

CLINICAL NOTES ON ERRORS OF REFRACTION.

He said it was a fact well known to many practitioners that errors of refraction may, and often do, produce a variety of eye troubles as well as other disturbances more or less serious in their nature. He had seen patients to whom powders, pills, and potions had been administered *ad nauseam* for headaches, vertigo, so-called bilious attacks, etc., without one iota of relief, and who were quickly cured of their maladies by the proper adjustment of spectacles. Such patients, of course, had some error of refraction, but the disturbing influence of this condition was not understood by the physician.

While headaches of a general or frontal character occur commonly enough as the result of eye-strain, there was a particular form of headache to which he desired to call attention in this connection. In a word, it resembled very closely the headaches due to congestion or inflammation of the fundus uteri. He was satisfied that pain of a dull, throbbing character, with a sense of weight and fulness, and confined to the vertex, with or without pain at the nape of the neck, was due, in many instances, to straining of the eyes. To illustrate this point, notes of several cases were given. In some of these cases, the patients had been previously treated for imaginary uterine disease; others were treated for so-called bilous attacks, etc., but without benefit. In every case, complete relief was afforded by spectacles, which corrected existing errors of refraction.

Numerous cases were reported, showing the influence which eye-strain exerts in producing disease of that organ, and the difficulty of curing such cases unless the error of refraction was first corrected.

DR. CONNOR mentioned two cases which had come under his observation: In one, a physician, astigmatism had so excited the brain as to produce insanity, which disappeared after wearing glasses. In the other, after correcting errors of refraction, epileptic attacks had grown less severe.

On motion, the

COMMITTEE ON ADMISSIONS

was ordered to report the next morning at the beginning of the session.

MAY 10TH.—SECOND DAY.

MORNING SESSION.

The Society was called to order at 9.30 A.M. by the President, and the roll called by the Secretary.

THE COMMITTEE ON ADMISSIONS

then rendered their report, recommending quite a large number of applicants, and stated that, for want of time, a large number of applications had not been sufficiently considered, and asked for more time. The application of Dr. George A. Hendricks, of Ann Arbor, was reported on adversely, and his case was referred to the Judicial Council.

DR. TYLER, *Chairman* of the

COMMITTEE ON NOMINATIONS,

reported the nominations for all officers below president, the president being chosen by ballot.

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PROF. VAUGHAN, of the University, offered as a substitute a full set of nominations. The Committee's nominations, after discussion, were adopted by a large majority.

BALLOTING FOR PRESIDENT

ensued. DR. A. F. WHELAN was nominated by Dr. Smart, and supported by Drs. Hitchcock and French.

PROF. MACLEAN then rose, and said that though his friends had proposed to nominate him for president, he would move to have the ballot of the Society cast unanimously for Dr. Whelan.

On motion of DR. TUPPER, moved that the Secretary be instructed to cast the vote of the Society for Dr. A. F. Whelan, which was done, and Dr. Whelan declared unanimously elected President.

The following were recommended and elected

OFFICERS FOR THE ENSUING YEAR:

President.—A. F. WHELAN, M.D., of Hillsdale.

Vice-Presidents.—DRS. HORACE TUPPER, of Bay City; J. S. HAMILTON, of Tecumseh; H. B. BARNES, of Ionia; AUGUSTUS KAISER, of Detroit.

Secretary.—DR. GEORGE E. RANNEY, of Lansing.

Treasurer.—DR. A. R. SMART, of Hudson.

Judicial Council (to serve for three years).—DRS. FOSTER PRATT, H. B. SHANK, and S. P. DUFFIELD.

Delegates to the American Medical Association.—Drs. H. C. Wyman, J. B. Book, Wm. Brodie, L. Connor, H. O. Walker, and E. L. Shurley, of Detroit; E. S. Dunster, A. B. Palmer, and W. F. Breakey, Ann Arbor; Foster Pratt, Kalamazoo; A. R. Smart, Hudson; J. H. Bennett, Coldwater; J. Andrews, Paw Paw; S. S. French, Battle Creek; C. H. Lewis, Jackson; F. K. Owen, Ypsilanti; Jas. Munson, Pontiac; Hugh McColl, Lapeer; A. F. Hagadorn, Bay City; J. H. Jerome and L. W. Bliss, Saginaw; W. N. Smart, Grand Haven; Geo. E. Ranney, Lansing; I. R. Shephard and C. V. Beebe, Manistee; W. E. Dockery, Pentwater; W. L. Dickinson, East Saginaw.

DR. POST, of Lansing, presented a paper on

WATER AND ITS RELATION TO HEALTH AND DISEASE.

The paper was practical, and gave most of the tests used in water analyses, the method of preparing the reagents, and the deductions drawn from the presence of many impurities. He related his experience in examining ice which gave a bad taste to the water in which it was placed, and an interesting account of two cases of bad-tasting water—one of which was traced to a fresh-water sponge which gave the water a cucumber taste and smell; the second case was traced to a fungus which was found to grow upon fish, killing the fish, but no trace of the fungus could be found in the water.

Of chlorine, he said that no single indication is of so great importance, and that the purity or impurity depends quite largely on its presence or absence. How salt, which is considered harmless of itself, can become a signal of danger in water, is easily understood. No mineral substance is so widely diffused as common salt; it exists in the air and in the earth, it is washed out of the soil, and is found in all well and spring water, though often in minute quantities, and is carried by our rivers down to the sea. It is difficult to determine what is the normal amount of salt in pure water, but it cannot be large. Should it reach four or five grains per gallon, it should certainly be looked upon with suspicion. Sewage always contains salt, either from the house-drain or water-closet; and if water is found to contain chlorine, it is undoubtedly contaminated from one of these sources.

DR. H. J. REYNOLDS, of Orion, read a paper on the

ETIOLOGY OF URETHRAL INFLAMMATION.

He thought that we should be very careful of our diagnosis of urethral troubles, as they often involved the happiness and welfare of others besides the patients. He classed the inflammation as simple and specific, and gave something of the recent history of these cases. He thought that very often the inflammation was caused by some irritation applied to the parts. He seemed to think that we resorted too often to severe remedies, and that milder remedies, with time and patience, brought about better results in most cases.

AFTERNOON SESSION.

DR. T. N. REYNOLDS, of Detroit, read a paper on

TIMELY CATHARSIS.

He recommended the use of cathartics in the early stages of labor and pneumonia. He had aborted an attack of rheumatism by free catharsis; the same result had been reached in one case of trifacial neuralgia, and in the delirium following cranial injuries. He recommended three drops of croton oil, in water. He used the same for puerperal mania, violent hysteria, and uræmia. He did not discuss the abuse of cathartics. For mild action, he recommended a glass of warm water, or a cup of coffee, in the morning.

In the discussion following, attention was called to the fact that free catharsis did not necessarily imply that the bowels had been emptied. DR. SMART mentioned one case where about a peck of fecal matter had been removed after apparently free catharsis.

DR. H. O. WALKER, of Detroit, presented a paper upon the use of

PLASTER OF PARIS AS A SURGICAL DRESSING.

He briefly referred to its first introduction and history up to the present time, followed by a description of the mode of preparing and applying, together with numerous illustrations of a variety of cases to which it is applicable, both in the treatment of fractures, diseased joints, and deformities.

DR. A. R. SMART, of Hudson, read a paper giving a

HISTORY OF A DISEASED EAR,

which had afflicted the patient about thirty years. The patient suffered much pain in the diseased ear and an almost constant offensive discharge. On examination with a probe, he thought he discovered necrosed bone. Grasping the substance with his forceps, he withdrew what proved to be a glove-button. This button had caused much suffering, and nearly destroyed the hearing in that ear. The pain and discharge almost immediately ceased on removal of the foreign body.

REPORT OF COMMITTEE ON THE PRESIDENT'S ADDRESS.

The special committee to whom was referred that portion of the President's address, which caused so much controversy, reported that the address contains the following points or propositions, briefly stated, which he suggests for the consideration of the Society:

1. The best means of securing a higher standard and attainment in the profession.

Your committee can see no reason why the Society, if time permitted, might not profitably consider and discuss the above proposition.

2. The possibility and desirableness of combined action between the Board of Regents and the State Medical Society in securing such legislation as is now generally needed to protect the people against the increasing number of irresponsible and unqualified medical practitioners.

With regard to the above, your committee believe that the only portion liable to suffer from its discussion would be that class of practitioners to which it alludes.

3. The manifest injustice of giving gratuitous treatment at the University Hospital to patients able to pay for medical services, and for whom such treatment was not originally intended.

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As a large portion of the profession of the State have complained of such gratuitous treatment, and on apparently good and reasonable grounds, your committee can see no reason why the Society might not profitably consider and discuss this proposition.

4. As to the propriety and justice of some of the professors in the University, treating patients in hospital wards attended by hospital nurses, and exacting pay for such treatment for their own personal emolument.

While at first thought it might seem that this Society had no interest in this matter, other than in common with other taxpayers of the State, still your committee believe that the manifest injustice of this practice (if it exists) to the profession at large might be properly discussed by the Society.

5. As to the propriety of the practice of extolling the qualifications of the medical and surgical staff of the hospital or belittling those of the profession at large, to the great injury of the latter, in advertisements scattered broadcast throughout the State.

Your committee believe that there may be some just ground of complaint on the part of the profession at large, and see no reason why this statement (if true) may not be properly discussed by those most interested.

As the foregoing questions were simply suggested by the President as proper subjects for consideration by the Society, your committee see no impropriety on the part of the President in suggesting, or in that of the Society in calmly and dispassionately considering and discussing such questions.

The report called forth quite an animated discussion.

PROF. PALMER, of the University, spoke at length. He made a specific denial of each charge against the Medical Department and Hospital, and was heartily endorsed by Prof. Maclean, who covered the same grounds, and added that he thought if members would visit the hospital, laboratory, etc., they would go away with different impressions.

DR. HITCHCOCK also spoke for the University.

DR. BRODIE said that the impression had gone about through the State (and even existed in Washtenaw County), in which Ann Arbor is situated, that the public property of the State at Ann Arbor was being used for private purposes.

On motion of DR. PRATT, the report of the Committee and the remarks of Drs. Palmer, Maclean, Hitchcock, and Brodie, together with the President's address, were referred to the Publication Committee.

DR. HENRY B. BAKER read a short paper on the subject of the most common

CAUSATION OF DIPHTHERIA,

asking attention to the mode of studying the subject by means of statistics of deaths during long series of years in many cities, States, and countries. He presented a table of such statistics showing the number of deaths in each year, the table having the years of maximum mortality marked to show what he called the "crests of epidemic waves," which seem to recur with considerable regularity. "About twenty instances in cities and thickly-settled countries, where means of contact are greatest, show an average period of between five and six years. In sparsely-settled country districts, four instances show an average period of about fourteen years"—between the crests of the waves. He stated the age of greatest liability to death from diphtheria to be the ages under ten years, particularly the ages of three, four, and five years. He thought the statistical evidence strongly favors the view that the most common and the most general cause of diphtheria is contact with something derived from a previous case of diphtheria; and that, "besides the comparative insusceptibility of communities in which many children have died with or recently had diphtheria, the comparative extent and complexity of the modes of intercourse in city and in country districts is an important factor in determining the length of the period between epidemic waves of diphtheria."

DR. E. B. WARD, of Laingsburg, read a facetious poem, which created much merriment.

NEXT PLACE OF MEETING.

The invitation extended to the Society by the physicians of Grand Rapids to hold its next annual session at that place was accepted, and the Society then adjourned.

MISSOURI STATE MEDICAL ASSOCIATION.

Twenty-sixth Annual Session, held at Jefferson City, May 15, 16, and 17, 1883.

(Specially reported for THE MEDICAL NEWS.)

FIRST DAY. MAY 16.

THE Annual Meeting of the Missouri State Medical Association took place at Jefferson City, May 15, 16, and 17, 1883. The PRESIDENT, DR. A. E. GORE, of Paris, in the chair. An

ADDRESS OF WELCOME

was given by GOVERNOR CRITTENDEN, who took occasion, in the course of his remarks, to criticise severely, the National Code of Ethics, and to prophesy the speedy downfall of the code and the destruction of walls of separation between the schools of medicine. In closing, he paid a merited tribute to the memory of DR. JOHN T. HODGEN.

The PRESIDENT responded in behalf of the Association, and entered a vigorous protest against the position suggested by the Governor; and declared emphatically his own position on the side of supporting the Code of Ethics.

The enthusiastic applause which followed, proved that he had well voiced the sentiment of the Association in thus defending the Code of Ethics.

DR. HALLEY, of Kansas City, introduced a series of resolutions urging upon Congress the appropriation of $250,000 to erect a suitable fire-proof building for the preservation of the

ARMY MEDICAL MUSEUM AND THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

Also urging the appropriation of $10,000 per annum for the maintenance of the library, and of such sums as may be necessary to secure the completion of the *Index Catalogue*.

DR. G. M. DEWEY, of Keytesville, read a paper entitled

A FEW REMARKS WITH REFERENCE TO THE CODE.

Some of the points made were well taken, and were heartily approved by the Association. He deprecated the establishment of a State Board of Health in which the different schools of medicine should be represented.

In the discussion following this paper, DR. HALLEY, of Kansas City, called attention to the admirable working of a Board of Health and Board of Examiners in the Dominion of Canada.

DR. KING, of Sedalia, gave some account of the history of the legislation in this State which has resulted in the passage of laws establishing a Board of Health and to regulate the practice of medicine and surgery. He remarked that the legislation thus far secured is only a commencement, and that future legislation will be influenced very largely by the recommendations of the Board of Health now provided for.

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DR. ALLEN, who had taken an active part in the matter of securing the legislation referred to, gave some fuller account of it, and called attention to the fact that the aim and object of all this legislation was to secure the safety and promote the interests of the citizen, not to advance the interests of the medical profession.

DR. C. A. TODD, of St. Louis, introduced a resolution repudiating the use of the term

ALLOPATH

with reference to the members of the regular profession. This was unanimously adopted.

EVENING SESSION.

Greetings were ordered to be sent to the Associations of Kansas and Illinois.

DR. FORD, of St. Louis, presented a long and exhaustive

REPORT ON PROGRESS IN GENITO-URINARY SURGERY.

He discussed some of the difficulties of genito-urinary, noting the dangers from hemorrhage, influence of urine passing over the wound, deep site of operation. He discussed at length the influence of stricture of small and large calibre, and the modern operation of lithotrity or litholapaxy. The reading of the first half of the paper having occupied more than an hour, the remainder of the paper was referred, without reading, to the Committee on Publication.

DR. TRADER, of Sedalia, read a brief paper upon the use of the

ELASTIC LIGATURE IN SURGERY,

showing its advantages and the limitations of its usefulness.

DR. ALLEN presented an oral report from the

COMMITTEE ON MEDICAL LEGISLATION,

giving account of the work done and the results accomplished in the direction of medical legislation.

A resolution was then adopted tendering the thanks of the Association especially to the members of the medical profession and others, who were most active in securing this legislation and to the General Assembly for the enactment of those laws at the late session of that body.

SECOND DAY, MAY 16.—MORNING SESSION.

The first order of the day was the report of the commitee on the

PROGRESS OF MEDICINE,

presented by DR. LESTER, of Kansas City, in which he treated particularly of the bacillus tuberculosis, treatment of typhoid fever, and treatment of rheumatism by the salicyl compounds.

DR. KING, of Sedalia, spoke emphatically in favor of the cooling bath in typhoid fever.

DR. TODD, of Kansas City, did not believe that the direct abstraction of heat is of advantage in itself, and thinks that the view of those who advocate the cold baths is pathologically erroneous.

DR. DEWEY, of Keytesville, spoke in condemnation of the use of large doses of quinine in typhoid fever.

DR. ALLEN said that he had of late used tincture of digitalis with decided advantage in the later stages of typhoid fever when there is a tendency to failure of the heart.

COMMUNICATIONS FROM THE TRI-STATE MEDICAL SOCIETY

were then presented, inviting the appointment of delegates to the meeting of that Society, to be held at Indianapolis; also from the

KANSAS STATE MEDICAL SOCIETY,

inviting appointment of delegates from each society to the other.

DR. J. W. BRENT, of Tipton, read a paper on

FORCE,

which, not being specially medical in its scope, elicited no discussion.

DR. S. POLLAK, of St. Louis, read a paper on

JEQUIRITY IN OPHTHALMIA,

reciting his personal experience in the use of this new remedy, and fully endorsing the favorable reports that have been published with reference to that drug.

DR. HALLEY, of Kansas City, read an abstract of a more extended paper, discussing the *Nature and Classification of Tumors*.

The paper of DR. E. J. WARTH, of Nevada, on *Spontaneous Evolution*, was read by title.

DR. B. F. WILSON, of Salisbury, read a paper on *Bacteria, their Nature and Influence*, which Drs. Allen, Hart, Hughes, Porter, Potter, Campbell, and Johnson discussed at some length.

AFTERNOON SESSION.

THE ADDRESS OF THE PRESIDENT

was the first order of business.

THE PRESIDENT, DR. GORE, showed some of the changes that have taken place in the course of medical practice during the years since his student-days, and pointed out how limited is the progress that has been made, and how great is the need of additional progress. He also referred to the defects of medical education with regard to practical points.

DR. T. J. NORRIS, of Macon, presented a report of

THE COMMITTEE ON MEDICAL EDUCATION,

containing extracts from letters received from a number of prominent physicians in this State and elsewhere in response to letters of inquiry regarding their views on medical education.

A motion was passed to

AMEND THE BY-LAWS

by limiting the reports of standing committees to thirty minutes in length, and other papers to twenty-five minutes in length.

EVENING SESSION.

A biographical notice was read by DR. E. M. NELSON, of St. Louis, in memoriam of

DR. JNO. T. HODGEN,

whose death occurred so shortly before the last meeting of this Association that no opportunity was afforded for the preparation of a sketch.

DR. P. V. SCHENCK, of St. Louis, then read a very able and thoroughly prepared paper, in which he discussed the

VITAL AND HEALTH STATISTICS OF THE SEXES,

showing that female lives are in truth better risks for life insurance than are male risks, contrary to the view generally held by insurance actuaries heretofore.

A lady representative of the Sons of Temperance was granted permission to address the Association for five minutes on the subject of temperance, which she did.

DR. ALLEN, on behalf of a special committee, made a motion that the

TIME OF THE ANNUAL MEETING

be changed from the third to the second Tuesday in May, to allow the attendance of delegates from this

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Association upon the meetings of the Kansas and Illinois Associations, both of which met on the third Tuesday of May. A motion was also passed, providing for the appointment of delegates to these Associations.

DR. N. W. HARRIS read a paper on

GLAUCOMA,

giving experience of the disease in his own case.

DR. F. B. TIFFANY, of Kansas City, read a paper on the same subject, discussing the pathology and treatment of the disease.

THIRD DAY, MAY, 17.—MORNING SESSION.

The first paper of the morning was the special

REPORT ON ALCOHOL,

by DR. J. M. ALLEN, of Liberty. In accordance with the suggestion of the paper a committee of three was appointed to report at the next meeting on the relations between spirit-drinking, insanity, and crime.

The following papers were read by title and referred to the Committee on Publication, the authors not being present to read them in full:

Injuries to the Head, by DR. R. F. BROOKS, of Carthage.

Case of Congenital Encephaloma, by DR. J. H. DUNCAN, of Columbia.

ELECTION OF OFFICERS

being the special order of the day, DR. E. H. GREGORY, of St. Louis, was nominated as *President*, and the PRESIDENT was requested to cast the vote of the Association for Dr. Gregory. The other officers as nominated by the Committee on Nominations, and so elected by the Society, were as follows:

Vice-Presidents.—DRS. O. A. WILLIAMS, of Morgan Co.; J. D. GRIFFITH, of Jackson Co.; JNO. H. DUNCAN, of Boone Co.; T. J. NORRIS, Macon Co.; C. H. HUGHES, of St. Louis.

Recording Secretaries.—DRS. A. H. OHMANN-DUSMENIL, of St. Louis; and D. V. WALL, of Jasper Co.

Corresponding Secretary.—DR. N. F. ESSIG, of Clinton Co.

Treasurer.—DR. C. A. THOMPSON, of Cole Co.

Sedalia was chosen as the *next place of meeting* of the Association.

A resolution was passed approving the record of

THE NATIONAL BOARD OF HEALTH,

and urging upon Congress the appropriation of sufficient funds for the efficient work of this Board.

DR. T. F. PREWITT, of St. Louis, gave a verbal report of a *Case of Rhinoplasty*, presenting photographs of the patient.

DR. N. M. BASKET, of Moberly, read a paper entitled *Some Suggestions on Sanitation.*

DR. W. A. HARDAWAY read a paper entitled *Electricity in Dermatology*, giving the result of ten years' experience in the use of this agent.

DR. T. E. POTTER read a paper reporting the results of use of *Ergot, Ergotin, and Sclerotic Acid in the Reduction of Enlarged Spleen and in Fibroids of the Uterus.*

DR. C. A. TODD, of St. Louis, read an abstract of a paper entitled

ANTISEPTIC TREATMENT OF SUPPURATIVE OTITIS BY THE "DRY METHOD."

It consists in this: no syringing is permitted, no drops are instilled into the ear; but all the secretions are gently but thoroughly removed with absorbent cotton, and an antiseptic powder is then applied. This method corresponds with that followed in the treatment of wounds in general surgery. Dr. Todd was the first to publish this method of treatment, in 1880, in a paper read before this Association, after he had thoroughly tested and proved its value by use in his aural clinic at the Missouri Medical College. Dr. Burnett, of Philadelphia, states that the duration of treatment by the two methods as tested in his practice, gives an immense advantage to the dry method. Dr. Todd was the first to urge the use of the highly soluble borax as an antiseptic powder, the other antiseptics in vogue being apt to remain undissolved in the ear, and so to cause inconvenience or even positive danger.

The following papers were then read by title: *Report on Malarial Diseases in Children*, by J. P. KINGSLEY, M.D., of St. Louis; *Intestinal Obstruction*, by J. GEIGER, M.D., of St. Joseph; *Report on Railroad Injuries*, by F. M. JOHNSON, M.D., of Kansas City.

The usual votes of thanks were passed.

The *President-elect*, DR. GREGORY, having been called away by a telegram, the *First Vice-President*, DR. WILLIAMS, was escorted to the Chair, and was welcomed in appropriate words by DR. GORE, the *retiring President;* and the Association then adjourned.

MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA.

Sixteenth Annual Session, held at Grafton, May 16 and 17, 1883.

(Specially reported for THE MEDICAL NEWS.)

FIRST DAY, MAY 16TH.

THE Medical Society of West Virginia convened in sixteenth annual session in the Court House in Grafton at 2 o'clock, the *President*, DR. B. W. ALLEN, of Morgantown, presiding.

DR. W. L. GRANT, *Chairman of the Committee on Arrangements*, made an address of welcome on behalf of the Committee, and Hon. John W. Mason, on behalf of the Mayor and citizens of the city, welcomed the Society to Grafton.

The following gentlemen presented credentials as

FRATERNAL DELEGATES

from the societies named: Drs. H. G. Landis and J. F. Baldwin, of Columbus, from the *Central Ohio Medical Association;* Dr. R. B. Stover, of Richmond, from the *Virginia State Medical Society;* and Dr. David Little, of Lebanon, O., from the *Ohio State Medical Society.*

The first *Vice-President*, DR. GRANT, of Grafton, was called to the chair, and DR. ALLEN then delivered

THE PRESIDENT'S ADDRESS,

in which he discussed the Code of Ethics, and the advisability of establishing a medical department in the State University.

The following gentlemen were elected

NEW MEMBERS:

Drs. Reed M. Baird, C. M. Frissell, J. H. Silbey, I. P. Birney, of Wheeling; T. F. Lanham, Newbery; J. L. Nixon, Flemington; C. O. Henry, Shinnston; J. C. Lawson, Bridgeport; Geo. L. Bomberger, Iron Dale; and J. I Warder.

THE SECRETARY'S REPORT

showed the Society to be in a flourishing condition, and increasing in membership, which now numbers one hundred and seventeen.

THE REPORT OF THE TREASURER

showed the Society out of debt, and a balance of over one hundred dollars in the Treasury.

From the

COMMITTEE ON CLIMATOLOGY AND EPIDEMICS,

DR. R. W. HALL, Chairman, presented a report, briefly reciting facts in regard to the prevalence, in

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different parts of the State during the year, of pneumonia, influenza, parotitis, diphtheria, scarlet fever, typhoid fever, variola, and other diseases. Of *variola*, the report says: "It made its appearance in Berkely County, but owing to the prompt action of the State Board of Health, assisted by the Mayor of Martinsburg, the County Court, together with the intelligent aid of the physicians of the county, the disease was effectively quarantined, and only five cases occurred. Thus were the people saved, by these guardians of the public health, from an epidemic of smallpox that would doubtless have cost the State more in treasure alone than the maintenance of a health board for years." . . . "An epidemic of this disease is now raging in Mercer and adjoining counties. A tramp, infected with the disease, was the means of originating the first case. This was supposed to be varicella by the physician, who had never seen a case of smallpox. No attempt at isolation was made. The attending physician contracted the disease. The patient died, and the funeral was public and largely attended. Thus the disease was spread, and ten deaths had occurred at last report. The State and local Boards of Health are using every effort for the suppression of the disease, but not much progress has thus far been made."

He also spoke of *Typhoid Fever Epidemic in Marion County*. There were about two hundred cases, with a mortality of twelve per cent. The history of the disease as it occurred in one family deserves mention. Dr. McIntire was called to see a child in a family of thirteen, living at the head of a ravine, in a log house with but one room. The Dr. promptly notified the local board of health, and asked for instructions. The removal of all the children was directed, and the direction given that no one should use the well water, as the well was found to be in a condition to receive all the surface drainage at and above the house. These directions were unheeded. One after another of the family was stricken down, until every child and the father had contracted the disease. Four deaths occurred.

TYPHOID FEVER.

DR. REEVES thought that typhoid fever may arise *de novo*, under favorable conditions. He held that it is decidedly contagious, and cited cases in his own experience to prove the correctness of this position. He gave his recent experience with ergot in its treatment; he had now used it for about three years, and felt quite sure that under this treatment the cases pursued a milder course. High temperature was not so common, nor were hemorrhages so often met with.

DR. STOVER, of Virginia, advocated the use of ergot in this disease, and also in pneumonia. Believes it acts as an antiseptic more rapidly than any other drug. He gives one drachm of Squibb's fluid extract every three or four hours, and has never met with any unpleasant result.

DR. LANDIS, of Ohio, could not accept the theory that typhoid fever is contagious.

DR. JEPSON remarked that three interesting points are presented for discussion. First, may typhoid fever arise *de novo?* From the investigations of the Massachusetts State Board of Health, he was led to conclude that it may, under exceptional circumstances. Second, is it contagious? In a year's experience, through a severe epidemic, in a large general hospital, where fever patients were not isolated, not a physician, nurse, or patient with other disease, contracted typhoid. This is a common observation. We seldom see two cases in same family. When we do, we always have other means of accounting for the existence of second or third cases. All use the same water, all subject to same emanations from decomposing discharges. He believed that the excreta became poisonous by decomposition, and if a suitable nidus is found for the poison it may again enter the system. He accepts the theory that the disease should be classified as miasmatic-contagious. Third, as to the ergot treatment, so highly lauded, he would say that a very large experience only could determine the value of any remedy. In four years (1878–1882) he had not lost a single patient from typhoid fever. He began to think that he had found a good way to treat this disease. In the next few months, however, he had lost five cases, when he concluded he did not know any more about its treatment than other physicians.

DR. LAZZELL, who has had an unusually large experience in this disease, believed it to be at least communicable; he did not care whether you call it contagious or not. He cited some interesting facts observed during an epidemic in the country, where, he stated, every individual who had visited a certain house where typhoid existed, contracted the disease, and nobody had it who remained away, unless they came in contact with other patients.

DR. BALDWIN, of Ohio, advocated the possible *de novo* origin of the disease. He believed that the previous existence of a case was not necessary, as a man may contract gonorrhœa from a menstruating woman, and afterwards communicate virulent gonorrhœa to another woman. So, he thought, may typhoid fever arise *de novo*, and afterward be communicated by contaminated drinking water. He did not believe the disease ordinarily contagious, but was not quite prepared to say that very malignant cases did not sometimes prove so. As to treatment, he knew many cases would recover without treatment, or with any plan of treatment, or even in spite of treatment.

He was not in the habit of giving much medicine, but proper feeding and nursing were the main elements in the management of this disease. We often speak of "curing" our cases, but he preferred to use the term in its original sense of taking care of, and not in the sense of *making well*. With the former meaning we doubtless do cure many of our cases.

DR. CARPENTER emphatically protested against these "do-nothing doctrines" in the treatment of disease. We have many positive remedial agents, and they may be used with decided benefit in the treatment of the disease under consideration. The prevailing opinion seemed to be that the disease may arise *de novo;* that it is not contagious in the common acceptation of that term; that many cases recover with but little treatment except the most careful nursing and attention, but that bad symptoms may be often successfully combated with proper medicines.

DR. J. E. REEVES then introduced the following resolutions regarding

THE ARMY MEDICAL MUSEUM AND LIBRARY:

Whereas, The collections known as the Army Medical Museum and the Library of the Surgeon-General's office, located in Washington, D. C., are recognized as among the most complete and valuable of their kind in the world; and as their practical usefulness has been abundantly demonstrated by the interest with which they are regarded by the medical profession, both at home and abroad; and

Whereas, By reason of the insecurity and unsuitability of the building in which they are now placed, they are in constant danger of damage or destruction, from which would ensue irreparable loss; therefore

Resolved, That in the opinion of the Medical Society of the State of West Virginia, the inestimable value of these collections demands from Congress such fair consideration of the merits involved, as will secure an appropriation of sufficient amount to provide a fire-proof building of adequate size and suitable construction,

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for the present and future uses of the Museum and Library.

Resolved, That the Army Medical Museum and Library of the Surgeon-General's Office, are inseparable in object and interest, and only capable of the greatest usefulness when under one control and management; that this Society views with regret and disfavor, any attempt to separate the two. Dismemberment must result in injury to both.

Resolved, That Congress would meet the wishes of the medical profession of the United States, by appropriating suitable sums of money for the support, care, and increase of these collections; viz., not less than ten thousand dollars annually for the library, and five thousand dollars for the museum.

Resolved, That the work now in progress under the direction of the Surgeon-General of the Army, entitled "An Index Catalogue of the Library of the Surgeon-General's Office," is also one in which the medical profession of the United States is greatly interested, and should receive the substantial aid and encouragement of Congress, with a view to its speedy and certain completion.

Resolved, That a copy of these preambles and resolutions be forwarded to each senator and representative of our State, requesting his special aid and coöperation in the matters herein specified.

These resolutions were unanimously adopted.

SECOND DAY, MAY 17TH.—MORNING SESSION.

DR. D. PORTER MORGAN presented a preamble and the following resolution:

Resolved, That this Society elect annually three members, who shall constitute a COMMITTEE ON PUBLICATION, whose duty it shall be to associate with themselves an editor. This Committee and editor shall publish a quarterly medical journal, under the auspices of this Society (and, if practicable, in conjunction with the State Board of Health), to be styled ———. This Committee and editor, in addition to publishing through the different numbers of the year the approved papers read before this Society, may insert original articles, selections, etc.

After a brief discussion, not altogether favorable, on motion of DR. JEPSON, the preamble and resolution were referred to the Committee on Publication, with instructions to report on the subject at the next annual meeting.

DR. A. F. STIFEL, on behalf of the

COMMITTEE ON THE BROCK PRIZE,

reported that no medical paper had been presented to the Committee.

DR. JOHN FRISSELL, of Wheeling, read the report of *A Lithotomy;* and also read a paper entitled

HEALTH: HOW TO BE ACQUIRED, AND HOW TO BE PRESERVED.

A large part of the paper consisted of a treatise on tobacco, its history, properties, and evil effects on those using it habitually. As the paper contained many facts that might be of use to the people, it was, on motion of Dr. Wilson, referred to the State Board of Health, to be printed in their *Report*.

DR. VANKIRK, of Grafton, presented the following preamble and resolution regarding the

NATIONAL BOARD OF HEALTH,

which were adopted without discussion.

Whereas, The National Board of Health, by its efficiency and faithful discharge of official duty, has won the confidence and endorsement of the most expert sanitarians, both in this country and Europe, and of the medical profession generally in the United States; and

Whereas, This Society deems it of the greatest importance that the strong arm of the general government shall be exercised to prevent the introduction of contagious and infectious diseases into the United States from foreign ports, and their spread from State to State; to coöperate with and aid State and municipal boards when such domestic authorities are unable to control or stamp out epidemic diseases among the people; therefore,

Resolved, That this Society requests the senators and representatives in Congress from West Virginia to use their influence to accomplish such legislation as will secure the perpetuity and usefulness of the National Board of Health in preventing the importation of foreign pestilences and their spread among the people; to coöperate with and aid State and municipal boards of health when such boards are unable to control and suppress pestilences which are afflicting and killing the people; to encourage investigations concerning the sources or causes of diseases among the people; and insanity as a disease, and the duty of the medical profession of the State concerning its management. Clothe the central power and authority with a sufficient appropriation of money to enable it to discharge the important trusts committed to its care, and in a manner creditable alike to the general government and the medical profession of the United States.

DR. LAZZELL, of Fairmount, presented a brief report on *New Remedies*.

The following papers were read by title:

Cholera Infantum and its Sanitary Management, by DR. T. O. EDWARDS, of Wheeling.

Anomalous Cases of Labor, by DR. C. F. ULRICH, of Wheeling.

DR. R. W. HALL, of Manington, presented the

REPORT OF A CASE OF PERITONEAL HÆMATOCELE,

in which he drew off, by aspiration, ninety-six ounces of fluid, resembling prune-juice in color, and having quite an offensive odor. The patient expressed herself as greatly relieved. All the tenderness and pain that had previously existed vanished as if by magic. The patient, however, soon had general peritonitis, but finally recovered, and now enjoys good health.

A paper on the *Germ Theory of Disease*, by DR. E. C. MYERS, of Wheeling, was read by title.

DR. D. PORTER MORGAN read a paper on the

ABUSE OF ERGOT IN OBSTETRIC PRACTICE.

He urged that we should give ergot in labor cases:

1. Never till the uterus is thoroughly dilated or dilatable, the perineum thoroughly relaxed, and not unless the pelvis is of normal shape; and it is better not given even then.

2. Not until the head has passed the perineum, and continued inertia exists.

3. To secure contraction in post-partum hemorrhage, but then not until the uterus is emptied of placenta, coagula, etc., by other means. Even in such cases continued pressure of fundus after Credè for expelling placenta is better, and the intra-uterine injection of hot water is superior to ergot in controlling hemorrhage, and is not attended with the same unpleasant effects. Quinia and the abdominal bandage will overcome uterine atony in almost all cases much more certainly than ergot, and we possess in the hand a safe, rational, easy, ever-ready remedy to be used in the manner already mentioned.

Finally, it is very questionable whether the risks to both mother and child from the use of ergot do not more than counterbalance any advantages attending its use. It were probably better had it never been given in labor, at least before the uterus was emptied.

DR. LANDIS, Prof. of Obstetrics in Starling Medical College, was invited to speak on the subject. He said

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he had at one time resolved to attend one hundred consecutive obstetrical cases without the use of ergot, carefully watching the results. Towards the completion of the series, two cases occurred, serving to show how often we may be mistaken as to what we suppose to be the action of ergot. In the first, arterial action was so imperfect, and he was so weary of the case, that he sent for ergot, resolving to break over his rule. Before the ergot arrived, however, active uterine pains set in, and continued so violent that the fœtus was at once expelled, and the labor terminated. Had the patient taken a single dose of the ergot, he would have been quite certain that the active contractions were the result of it. In the second case, where hemorrhage existed, and the usual means at hand failed to check it, he reasoned, "Now, if this patient dies, I will probably be criticised for not using ergot," and a dose of fluid extract was administered. He was confident it had not reached the bottom of the woman's stomach until she began to vomit, and, at the same time, active uterine contractions set in, which at once put an end to the hemorrhage. Now, he was quite sure that, in many cases, tonic contractions of the uterus come on during labor without any obvious cause, and sometimes after ergot has been given, but entirely independent of any so-called oxytocic effects of that drug. More frequently ergot excites uterine action by producing nausea, which all physicians are glad to see in atonic conditions of the uterus, because they know it is generally followed by active contractions. On this principle he had no doubt ipecac acts, this drug having recently been lauded as an oxytocic.

Remarks were added by Drs. Gregg, Morgan, and Stover, of Virginia, all discouraging the too frequent use of ergot.

DR. CARPENTER, of Moorefield, read a paper entitled

INSANITY AS A DISEASE, AND THE DUTY OF THE MEDICAL PROFESSION OF THE STATE AS TO ITS MANAGEMENT.

DR. BALDWIN, of Ohio, coincided largely in the views of the writer. Asylum statistics were very deceitful. Cases were reported as cured which found their way back, only to be reported cured again; thus adding to the number of "cured" in the statistics, no cure at all having been brought about. He did not believe much in the possibility of curing the insane, except such functional cases as depended upon some disease elsewhere than in the brain as puerperal insanity, etc. These may be cured, but not five per cent. of the cases of genuine insanity are in his opinion curable. He referred to Spitzka's criticism of asylum superintendents, and agreed with him that these men, while enjoying so many opportunities, had done almost no scientific work. Much more in this direction had been done by men having no connection with asylums than by the medical officers of those institutions.

Remarks were also made by Drs. Reeves, Howell, and Kunst, the latter formerly an officer of the State Asylum. He thought Dr. Carpenter had done the institution injustice in his statistics. During his connection with the institution, they had never included among the cured the same patient twice in the same year.

As a result of this discussion, the following resolution, offered by DR. HOWELL, was adopted:

Resolved, That a committee of seven, with Dr. Carpenter as chairman, be appointed by the President, whose duty it shall be to collect statistics and general information relating to the management of the insane, and report to this Society at its next annual meeting.

The following were appointed members of the Committee: Dr. G. H. Carpenter, of Moorefield, *Chairman;* Drs. A. Howell, of Clarksburg; G. B. Moffett, of Parkersburg; A. Gittings and A. H. Kunst, of Weston; A. F. Stifel and J. B. Reed, of Wheeling.

The following, offered as

AN ADDITIONAL BY-LAW,

by DR. JEPSON, was unanimously adopted:

No member shall occupy more than twenty minutes in the reading of a paper before this Society. If the paper prepared is too lengthy to be read within this limit, it may be read by abstract, the paper in full being referred.

Several other unimportant amendments were made in the Constitution and By-laws.

DR. MORGAN, of Clarksburg, presented the following resolutions regarding

THE NEW YORK CODE.

Whereas, The medical profession of West Virginia views with deep concern and regret the confusion and discord which have resulted in the State of New York from the action of the State Medical Society in renouncing its allegiance to the Code of Ethics of the American Medical Association, under which all State and other auxiliary societies have so long and harmoniously worked together for the common good; and

Whereas, Certain medical journals and specialists, under the specious pleas of "liberality," "humanity," and an advancing civilization (?), have used, and are still using every effort to bring about and maintain such a degree of opposition to the National Code as shall completely separate the said State Medical Society of New York from affiliation with all loyal organizations in other States, thus rendering it independent of, and antagonistic to, the American Medical Association; therefore be it

Resolved, That the Medical Society of the State of West Virginia again declares and reaffirms its willing allegiance to the time-honored National Code of Medical Ethics as the great common law, and the only safe and proper guide for the physician in the midst of the conflicting interests with which he is beset in daily practice, and in his intercourse with his Fellows.

Resolved, That the delegates from this Society to the American Medical Association, at its forthcoming meeting, be and they are hereby instructed to resist, by their votes and influence, all attempts which may be made to change or modify any of the provisions of the Code, or to in any other way compromise the dignity, high standing, and influence of the profession.

Resolved, That this Society recommends to the medical profession in West Virginia that they support by their subscriptions only such medical journals, recommend their patients only to such specialists, and direct their students only to such medical colleges, as have shown by their unequivocal attitude their appreciation of the demands of true humanity, their recognition of the pure and unselfish aspirations of our calling, and their loyalty to the high and noble interests of rational medicine.

Resolved, That a copy of these preambles and resolutions be forwarded to the permanent Secretary of the American Medical Association.

This resolution was unanimously adopted.

On motion of DR. LAZZELL, the Secretary was directed to purchase twenty-five copies of the Code of Ethics for the use of new members.

DR. S. L. JEPSON, of Wheeling, read a paper, entitled,

PUERPERAL FEVER, WITH SPECIAL REFERENCE TO ITS TREATMENT BY INTRA-UTERINE ANTISEPTIC IRRIGATION.

This was discussed by Prof. Landis and Dr. Morgan.

The Society then went into the

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ELECTION OF OFFICERS,

which resulted in the choice of the following:

President.—DR. A. GERSTELL, of Keyser.

Vice-Presidents.—1st. DR. C. T. RICHARDSON, of Charlestown; 2d. DR. A. T. STIFEL, of Wheeling; 3d. DR. D. P. MORGAN, of Clarksburg.

Treasurer.—DR. J. A. CAMPBELL, of Wheeling.

Secretary.—DR. S. L. JEPSON, of Wheeling.

Board of Censors.—DRS. A. H. KUNST, G. B. MOFFETT, GEO. BAIRD, J. B. REED, J. E. REEVES, J. N. BROWNFIELD, A. H. THAYER.

Clarksburg was chosen as the next place of meeting.

The Society then adjourned.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Fifth Annual Congress, held in New York, May 21, 22, and 23, 1883.

(Specially reported for THE MEDICAL NEWS.)

MONDAY, MAY 21ST.—FIRST DAY.

MORNING SESSION.

THE Fifth Annual Congress of the American Laryngological Association was called to order in the Hall of the New York Academy of Medicine, at 10 o'clock, by GEORGE M. LEFFERTS, M.D., PRESIDENT of the Association.

THE SECRETARY, DR. D. BRYSON DELAVAN, called

THE ROLL,

the following Fellows responding to their names:

Morris J. Asch, of New York; F. H. Bosworth, of New York; J. Solis Cohen, of Philadelphia; Wm. H. Daly, of Pittsburg; T. A. DeBlois, of Boston; D. B. Delavan, of New York; F. Donaldson, of Baltimore; J. H. Douglass, of New York; W. F. Duncan, of New York; L. Elsberg, of New York; T. R. French, of Brooklyn; U. G. Hitchcock, of New York; F. H. Hooper, of Boston; E. F. Ingals, of Chicago; F. L. Ives, of New York; W. C. Jarvis, of New York; S. Johnston, of Baltimore; R. H. Kealhofer, of St. Louis; F. I. Knight, of Boston; S. W. Langmaid, of Boston; G. M. Lefferts, of New York; R. P. Lincoln, of New York; G. W. Major, of Montreal; E. C. Morgan, of Washington; D. N. Rankin, of Allegheny; Beverley Robinson, of New York; J. O. Roe, of Rochester; Carl Seiler, of Philadelphia; A. H. Smith, of New York.

THE CHAIRMAN invited ex-Presidents of the Association to occupy seats upon the platform.

THE PRESIDENT then delivered his

ANNUAL ADDRESS.

After thanking the members for the honor conferred in his election as presiding officer, and bespeaking their assistance in the performance of his duties, he followed a duty sanctioned by custom by making some comments and offering a few suggestions. The status of the present Congress was the first subject of congratulation. Never before in the history of the Association had the annual gathering been so numerous. Never before had the number of essays been so large. At the first Congress they numbered fourteen, at the second eight, at the third fifteen, at the fourth eleven, and to-day they have swelled to the number of twenty-three—within one of fifty per cent. of the whole membership. Never before have the subjects chosen covered so wide and varied a ground, nor been of as great interest. Do not these facts speak for the vigor, for the vitality of our organization? Do they not show an increased and increasing interest in our work, and in each other? I hold so; and I congratulate you that it is so; and I congratulate myself, with a just and pardonable pride, that it has been under my leadership; that you have so well rallied about me, in my earnest aim to make the present a memorable occasion in our history.

Our constitutional limit of membership is fifty; to-day, after a short life of five years, that limit has been, or will be in a few moments, reached. Our ranks are full, our number to-day complete. Here, again, a subject for self-congratulation presents itself; success has crowned our efforts to make our young Association a living and lively power among American laryngologists; of its enviable reputation abroad I do not speak.

In order to provide for those who stand waiting for entrance, he deprecated increasing the constitutional limits of Fellowship, and suggested in its place a process of elimination, and substituting for a few drones in the hive able and active men, who are anxious and willing to assume these unprofitable Fellowships.

After referring to the annual volume of transactions, the visible sign of growth and importance of the Association, he referred to the incidental and social benefits, both personal and professional, derived from an annual gathering, as "a periodical taking stock of the gains of science in our department, of improved appliances, of more accurate means of diagnosis, and of more efficient means of treatment." He said, "We seek to assimilate to ourselves whatever is of value in the past or in the present, especially in the realms of our science and art."

"We are here then to-day, my colleagues, to spread the truths we know, and learn from others the truths they have to tell. We are here to give our knowledge freely, and to receive from others as freely the knowledge they have to bestow, and in the giving, as well as in the receiving, we shall increase our own store; *docendo discimus.*

"We are here to meet each other socially, to promote kindly feeling, to renew old friendships, and to lay the foundations of new, and, by personal intercommunion, to consolidate the bonds of that professional brotherhood of which we are all so justly proud.

"Gentlemen, fellow-workers, in promoting these good works, I bid you God-speed.

The CHAIRMAN called attention to a provision of the by-laws, limiting the time for papers to twenty-five minutes. He suggested the passage of a resolution, limiting the time devoted to discussion.

DR. W. F. DUNCAN offered the following resolution, which was adopted:

Resolved, That each gentleman taking part in the discussion shall limit himself to five minutes' time, and shall not speak again during the same discussion, except by universal consent of the members present.

THE FIRST VICE-PRESIDENT, DR. CARL SEILER, was called to the chair.

THE PRESIDENT, DR. GEORGE M. LEFFERTS read a paper entitled

NEW FACTS IN LARYNGOLOGY.

In using the term *new*, to characterize the facts to which Dr. Lefferts called the attention of the Congress, he was mindful of the aphorism, that there was "nothing new under the sun," and would perhaps, in the presence of an audience of experts, be obliged to substitute the term *fresh;* both adjectives would be appropriate, as far as he personally was concerned, for never until recently had he met with a case which presented the peculiar phenomena that he would attempt to describe; his study of the question likewise showed him that little concerning the matter existed in the literature of the day, and even that was indefinite; seven cases only were upon record. He believed the field opened

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up then for the labor of the Congress in this special question alone, was large, fertile, and he thought richly worthy of cultivation.

A gentleman is sitting at his dinner-table surrounded by friends; suddenly he ceases his conversation, endeavors to check a short cough, and the next instant falls from his chair to the floor unconscious, cutting his forehead as he plunges head-foremost upon the latter; almost immediately he arises, resumes his seat, and the conversation at the point where it was broken off.

Can any possible relation be traced, Dr. Lefferts now asked, between so slight a cause as the cough and so marked an effect as the fall? This was the question of the paper.

The patient was a young, strong man, free from any abnormality of either heart, lungs, or kidney. The attack here described was not the first that he has had. Several have occurred during the past eight years; he now lives in dread of a sudden fall. Very frequently, attacks of partial unconsciousness, always preceded by the same paroxysmal cough, have occurred; they last but a few seconds, are preceded by a blurring of vision, with dizziness or vertigo, and pass away instantly, leaving him clear-headed and bright. He has an incomplete history of hereditary neurosis. There is no evidence of any convulsive movements during the attack. The latter are always ushered in by the tickling in the larynx and violent cough. The face becomes suffused. In the worst he falls without cry, but rises immediately without confusion of ideas, and without remembrance of what has taken place during the brief unconscious interval. The less serious varieties of the attacks were then described by the writer of the paper.

An examination of the patient's throat showed little that was abnormal.

Dr. Lefferts had seen one other instance of the same affection, and the two constituted his experience of it. The second case resembled the first in all its main features, but was less severe, and had lasted a shorter time. The details were given.

After summing up the literature of the affection, and showing that Sommerbrodt was the first, in 1876, to describe a somewhat similar instance, dependent, in his case, probably upon the presence of an intra-laryngeal tumor, Dr. Lefferts reached the question of whether the series of phenomena that he had described would allow of his classing his cases as ones of "laryngeal vertigo," such as were described by Charcot. The question was then raised whether the name given to them by Charcot correctly described and explained the phenomena. Charcot holds that the curious symptoms take their origin in a peculiar irritation of the centripetal laryngeal nerves; that the "laryngeal vertigo" is, in many respects, to be compared with the vertigo met with in "Ménière's disease."

But does it not differ essentially from this affection in being attended by attacks of complete unconsciousness? asked the lecturer. How account for the convulsive movements that have been present in some of the reported cases? How reconcile the experience gained by the experiments of Féréol in the study of the laryngeal symptoms of locomotor ataxia with Charcot's hypothesis. Organic irritation of the laryngeal nerves *may* cause violent, powerful, paroxysmal cough, but the cases are not necessarily attended by loss of consciousness. Even direct violence to a nerve needs to be *excessive* in order to produce the latter condition.

Dr. Lefferts was therefore inclined to accept the theory of Dr. Grey, as laid down in his recent valuable essay, to which he was indebted for much information, that the disease in question was a form of epilepsy—using the term in its most catholic sense. The personal or hereditary, neurotic or epileptic history—complete or incomplete—obtainable in the majority of the reported instances, was a strong argument in favor of this view. But it was fair to state that it differed from the real disease in more than one important particular; notably in being readily amenable to treatment.

After a few further remarks, the question was submitted to the Congress for discussion, Dr. Lefferts requesting that the latter might more especially be directed to the matter of etiology.

DR. L. ELSBERG said that he scarcely felt able to take part in the discussion, and would merely refer to one point. He did not quite agree either with Charcot, in regarding the disease as vertigo, or with Grey, in considering it as an epilepsy. He considered it simply as a form of adductor spasm, a peculiar spasm of the intrinsic muscles of the larynx. At the last meeting of this Association, he called attention to several cases of this kind which Hack had reported; in one or two of which there were some symptoms which Charcot had alluded to, with loss of consciousness, vertigo, etc. He simply rose to make this statement, that he regarded these cases as instances of adductor spasm.

DR. KNIGHT suggested that the theory that the phenomena were due simply to the disturbance of the respiratory function, or as supported by the fact, well known, that temporary unconsciousness may be produced by rapid respirations, as in the practice of auscultation; in fact, anæsthesia for operation was sometimes so produced before the days of chloroform and ether.

DR. MAJOR remarked that though not prepared to discuss so abstruse a phenomenon as that propounded by Dr. Lefferts on purely scientific grounds, still on general principles he thought it well not to lose sight of the fact that such a condition might probably be considered an epileptic aura; such peripheral irritation occurred elsewhere, then why not in the larynx? At the same time, he did not seek to diminish the interest of the subject to the pure laryngologist.

DR. S. JOHNSTON thought the suggestion offered by Dr. Knight a good one, having personally experienced an attack of vertigo from rapid respiration.

DR. INGALS suggested that the brief and sudden loss of consciousness was similar to that of pseudo-apoplexy of fatty degeneration of the heart.

DR. LEFFERTS, in closing the discussion, remarked that it would seem from what has been said that the whole subject is, as he had said, involved in doubt and obscurity. Of course, it is very easy to construct theories to account for the phenomena presented by these patients. He was inclined to believe that it is one of the various auræ of epilepsy, commencing in the larynx. The subject is a comparatively new one in laryngology, and affords a wide field for future investigation and study, which he commended for the further consideration of the Association.

A COMMON FORM OF VOCAL DISABILITY RESULTING FROM PATHOLOGICAL PROCESSES.

S. W. LANGMAID, M. D., of Boston, called attention to a common form of vocal disability resulting from pathological processes, the phenomena being used to demonstrate the falsity of one system of voice training. He had observed a class of patients who are in the habit of making considerable use of their voice, who complain that at a certain point in singing the scale a break occurs in their voice; below this their normal tones are preserved. He attributed this condition to fatigue of the vocal apparatus, caused by fatigue following over-exertion. It not infrequently results from sudden cessation of singing after excessive use of the voice, and is more likely to occur in those filling a leading *rôle* than in the subordinate parts. It may be

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gradual in its onset, or may come on suddenly while on the stage. On examination, in addition to some injection of the mucous membrane over the cords, there is a relaxation of the vocal cords, due to paresis of the sphincter muscles of the glottis, including the tensor of the cords. The laryngoscopic appearances are those of fatigue, so well described in Cohen's work. The only fact to which he directed special attention, is that in examining the vocal apparatus, and asking the patient to sing the scale from below upward, he had noticed that on reaching a certain point in the scale there was a sudden relaxation of the cords, accompanied by a lowering of the voice, in a soprano at the ninth of the scale or the key of C; and in low voices at the seventh. It is a peculiar fact that this is just where the so-called change in the register occurs. The practice of falsetto upon these notes will in time produce the same pathological changes in the larynx as we see in cases of fatigue of the vocal organs.

DR. WM. H. DALY said that two cases had come under his notice within the last three months, illustrating the condition so ably described by Dr. Langmaid. The first was a former patient of Dr. Langmaid, and was referred back to him for treatment. He was a leading member of an opera company. He had a well-developed larynx, and there was no abnormality of the nasal chambers, certainly no enlargement of the pharyngeal tonsil. He was a very conscientious singer and his *confrère* was a very lazy one, so that he was forced to make extra effort in order to sustain his part to the best of his ability, and sometimes to his own disadvantage. He was suffering very much when he came to Pittsburg, so much so that he was afraid to undertake his *rôle*, as his voice suddenly failed on reaching a certain pitch. After a very careful examination of the case with the laryngoscope, and of his general physical condition, an opinion very much like that of Dr. Langmaid was expressed—that he was suffering from fatigue of the laryngeal muscles. He was directed to rest his voice for a time; either withdrawing entirely from singing, or by practising the parts of his colleague.

The next case was that of Miss A., an eminent opera singer, whose voice suddenly failed her in Pittsburg. Upon examination, a patch of Pittsburg soot was seen upon the right vocal cord, covering about one-third of its surface. When this was removed, a hyperæmic patch was discovered. She had been singing for many nights and had been over-worked. After the foreign substance had been removed, there was observed a relaxation of the muscles which were called upon in the formation of the upper notes. She greatly improved under rest and tonics.

Cases of this character require more than local treatment—ergot, nux vomica, and other nerve stimulants will restore vital action and will assist, with rest, in re-establishing a healthy action.

DR. GEORGE W. MAJOR said that the last patient mentioned by Dr. Daly had also been under his care last spring. She had been very much over-worked, having sustained the part of her tenor, suffering a severe strain with complete shutting off of sound. A condition resembling paresis of the arytenoid muscle was discovered, with slight hyperæmia. Rest was advised, but the advice was not followed.

In closing, DR. LANGMAID said, in reply to Dr. Seiler, that it seems not unlikely that the occurrence of hypertrophied pharyngeal tonsils might easily help to produce such a disturbance in the production of tone as to lead the singer to adopt some unnatural method of singing which would be likely to produce fatigue of the vocal organ. He agreed that treatment by strychnia, galvanism, and other means is to be used in these cases. He has never used ergot in this condition.

Since reading the paper he had been informed by Dr. Elsberg that Mandl has written upon the subject treated in his paper. He was quite unaware of this, and should be glad to compare Dr. Mandl's observations with his own.

AFTERNOON SESSION.

A paper on the

DESTRUCTION OF NASAL POLYPI BY CHROMIC ACID

was read by FRANK DONALDSON, M.D., who said that the object of treatment in cases of mucous polypi is to remove the growth with as little discomfort as possible, and to prevent their return. Of the three methods in use—evulsion, abscission, and the electric cautery, each had its advocates and its advantages, and each its disadvantages. Evulsion causes pain, and is often inefficient to prevent their return; the removal by the snare or wire loop is open to the same objection, unless the origin of the growth is cauterized, or part of the underlying structure, including the bone, is removed, as recommended by Mackenzie. Of the caustics, in his experience, chromic acid deserved the preference. His manner of employing it is to protect the surrounding mucous membrane with a lead solution, and part of the paste is then taken up on a glass rod and buried in the polyp, which shortly afterward dries up, and is easily removed with the forceps or snare. With chromic acid we can touch the exact point of origin of the growth; and it is useful in both forms of polypi, in gelatinoid and adenomatous. In the fibrous polypi it is less efficient, because they extend frequently to the naso-pharyngeal cavity. It is not intended to substitute chromic acid for surgical procedures, but it is effective as an aid to them, facilitating their action by destroying the substance of the neoplasm, by making the operation less painful, less bloody, and by supplementing their action in destroying the insertion of the growth, and thus preventing their reformation.

DR. WM. C. JARVIS said that a case had come under his observation which offered an excellent opportunity for the study of gelatinoid polypi. In this patient a markedly deviated septum had closed the superior meatus of the left nostril, causing a severe hemicrania, worse in damp weather. Believing that the headache was dependent upon the malformation, he removed the deviated tissue and found the roof of the nose occupied by a number of bead-like polypi. These embryonic polypi account for the return of the growths after removal. He believed that his écraseur, by nipping off a piece of the mucous membrane, prevented the return of growths removed by this method.

The embryonic cluster of polypi will account for their reappearance by space being offered for their development. Chromic acid is desirable to shrivel up these young polypi, but the écraseur should be always used for the larger growths.

DR. SEILER said that he had some remarks to make in regard to the pathology of polypi. He had examined a large number of growths microscopically, and had found them to consist of localized hypertrophies of the mucous membrane which had undergone myxomatous degeneration. He had therefore thought that recurrence was not due to regrowth from the pedicle, but due to new formation of polypoid growths caused by irritation, and that if all polypi were removed there would be no recurrence. He had found the wire snare of the Jarvis pattern to be superior to chemical escharotics, and had used the galvano-cautery, if necessary, to destroy the stump, as it was less painful and gave rise to less irritation when properly used than any other caustic he had ever used.

DR. W. F. DUNCAN said that he had treated a large number of cases of nasal polypi, and very much to his

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regret had noticed a regrowth or redevelopment of the polypi, under all forms of treatment, except where a part of the underlying turbinated bone had been removed. Chromic acid he had found useful to produce shrinkage of the growths, thus giving more room for the subsequent operation, and also in reducing the danger of bleeding after removal. The point which he especially wished to make is this, that after any operation, except the one mentioned, for the removal of gelatinoid polypi, they would be likely to return in the course of four or five years; he believed that they would return in eighty per cent. of the cases thus treated. He stated that the only method in which there is no recurrence is that advocated by Morell Mackenzie and Professor Gross, of removing a portion of the turbinated bone with the base of the polypi.

DR. DALY inquired if the application of the chromic acid and removal of the growth were accomplished at one sitting.

DR. DONALDSON replied that they were.

DR. DALY said that this would remove one objection to the treatment. He had no personal experience with the treatment as advocated by the lecturer; but it had always appeared to him that any treatment except that of prompt removal was a waste of time. He had used chromic acid, in fine crystals, applied with a copper curette or spoon to naso-pharyngeal growths, with much satisfaction. He had also used acid nitrate of mercury and glacial acetic acid, and had been much pleased with them. He did not think it made a great difference which form of caustic is applied, the effect is about the same.

DR. DONALDSON, in closing the discussion, said that he had used all the other caustics, but infinitely preferred the chromic acid; it acts more promptly, and is more efficient. Ordinarily, he asks the patients to report themselves once or twice afterward, so as to see that the growth had been entirely removed. He did not say that the pedicle of the growth cannot be removed with the snare, but merely that the chromic acid was more convenient to use than the snare.

DR. F. I. KNIGHT, of Boston, read a paper on

CHOREA LARYNGIS,

in which he recognized three classes of cases which had been reported under this head.

1. Those cases in which not only the adductors of the larynx, but also the expiratory muscles of the chest and abdomen are affected. This is the most common class, and includes most of the cases. The "barking" cough comes under this head.

2. Those cases in which the laryngeal muscles have been affected without any affection of the expiratory muscles. In this connection Dr. Knight reported an unique case of rhythmical chorea of the adductors, associated with rhythmical chorea of the levator palati.

3. Cases in which the expiratory muscles alone have been affected.

Dr. Knight considered that in our present knowledge of functional neuroses, instead of excluding cases which gave evidences of general chorea, or even of hysteria, we should look upon these manifestations as confirming our diagnosis; as all the functional resources seem closely allied, and that the present state of our knowledge would allow us to apply the term "chorea laryngis" to any involuntary clonic spasm which occurs in the larynx.

DR. LANGMAID said that by Dr. Knight's kindness he had had an opportunity of seeing this case; he was struck by the noiseless, rhythmic movements of the palate and laryngeal muscles. It would seem as though no remedies could be of service if medicine proved useless. In connection with Dr. Morgan's recital of his case, he said that in a similar one, which had already been reported in the proceedings of the Society for Medical Improvement in Boston, it was found that the explosion of sound was always preceded by a slight opening of the mouth. The patient was taught to close the mouth in time to prevent the explosion, and this proved to be completely curative.

DR. MORGAN stated that he had been particularly interested in Dr. Knight's paper, as he had an obstinate case of chorea laryngis associated with movements of expiratory muscle, occurring in a girl ten years of age. There was a barking or crowing cough every five or ten minutes, as also irregular movements of the arm. This cough was absent during sleep; articulation was perfect and general health good; the treatment employed, which has been partially successful, was Fowler's solution of arsenic; galvanism, tonics, etc., had failed to relieve.

DR. INGALS said that he had, some years ago, seen a patient who presented some of the symptoms mentioned in the paper; there was no spasm of the vocal cords, but there was rhythmic contraction of the levator palati with synchronous clicking sounds, which appeared to be due in some way to the action of this muscle on the orifice of the Eustachian tube. The patient had been sent to him by Prof. E. L. Holmes, of Chicago, on account of the peculiar clicking sounds, and had returned to him for treatment. The result was unknown.

DR. A. H. SMITH referred to a case of spasmodic contraction of the diaphragm lasting several weeks, which he had referred to the same cause, although affecting a different set of nerves.

DR. KNIGHT inquired if any Fellow had seen a case reported elsewhere of spasmodic closure of the glottis, as he had not been able to find a similar case to his own in medical literature. He was very glad to hear of Dr. Ingal's case.

DR. E. FLETCHER INGALS, of Chicago, read a paper on

THE TREATMENT OF LARYNGEAL PHTHISIS,

in which he said he took up the subject more from a hope of eliciting a discussion than with an expectation of completing it. It appeared to him that there were three prominent indications to be met in the treatment: 1st, To relieve pain. 2d. If possible to cure the disease. 3d. Failing in this, so to modify the course of the affection as to prolong the patient's life. In meeting the indications, pain may be generally relieved by topical applications, even though internal medication is of little avail. The disease may sometimes be cured by combining topical and internal medication, and in some cases by either of these alone. But if cure is impossible, life may be prolonged in most cases, by relieving pain, and enabling the patient to swallow, when otherwise he would die from lack of nutrition.

The reader illustrated his points by six cases, in two of which the internal remedies consisted mainly of the chloride of lime with cod-liver oil, or maltine and alcoholics; but in one, the most important factor in the treatment was removal to the invigorating atmosphere of Colorado. Mildly astringent and antiseptic topical applications were used. The author has also used a combination of morphine, carbolic and tannic acids; the last seeming to prolong the sedative effects of the carbolic acid. This application causes considerable smarting, which, however, only lasts a few minutes, and the painful deglutition was almost entirely relieved. This sedative solution he has also followed by iodoform.

In one case a solution of nitrate of silver was applied to a laryngeal ulcer, followed by a powder of iodoform and boracic acid. A spray of a solution of carbolic acid and sulphate of zinc, āā gr. ij–℥j, was ordered for

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home use, and bromide of potassium and tincture of belladonna internally. After two weeks' treatment, the cough was much relieved, but there was only slight, if any, improvement in the ulcers. Full doses of iodide of potassium were also given, with no better result. The patient was then put on grs. x of chloride of calcium in syrup of sarsaparilla after each meal, on which her general condition began to improve, though the ulcer was not perceptibly bettered. Eucalyptol was then applied to the ulcer, with the effect that, in two weeks, it was very markedly improved, and in continuance of this and the internal treatment, the patient made such favorable progress that at present she is doing fairly well. There was a single large ulcer, with no swelling of the ary-epiglottic folds, but the symptoms and history, with the absence of former scrofulous or syphilitic taint left no doubt as to the diagnosis.

Another case, with no bad history, and with extensive superficial ulceration of the ventricular bands, vocal cords and posterior commissure, was put on the chloride of calcium, tincture of iron, with cod-liver oil and alcoholics internally, and the solution of morphia, tannic and carbolic acids, followed by a powder of equal parts of iodoform and boracic acid applied to the larynx. Two weeks later a spray containing bichloride of mercury, gr. $\frac{1}{16}$–$\bar{3}$j, was ordered for home use; in six weeks there was decided improvement in general health, but the ulcers showed none. Eucalyptol was then applied, and under this treatment the ulcers began to improve, and the patient is still getting better. The reader did not hope for a cure either in this or the preceding case, but eucalyptol had given better results than any other topical application.

In conclusion, he thought it well established that: 1. We may meet the first indications for treatment better by topical applications than by any other means, and may expect to give the patients great relief for a considerable length of time. 2. A limited number of cases of laryngeal phthisis may be cured by local and general treatment. 3. In many, even of the fatal cases, life may be prolonged for several weeks by the topical application of remedies which obtund the sensibility of the part, so as to spare the patient the exhaustion incident to the pain and irritating cough, and at the same time allow the ingestion of food.

DR. WM. C. JARVIS, of New York, read a paper, entitled

THE HEALING OF ULCERS IN LARYNGEAL PHTHISIS.

He premised his remarks with a reference to the incredulity of the medical profession regarding the cure of laryngeal phthisis. This was in part due to fragmentary histories of cases reported, insufficient evidence, and claims for cure based upon peculiar methods of treatment. The history of a case was recited in which the phthisical ulcers had been entirely healed. The evidence of physicians and specialist from whence the case came, demonstrated conclusively advanced laryngeal phthisis. The lungs had been examined by experts, and coexisting pulmonary phthisis discovered. The treatment was explained in detail. It consisted locally in the frequent use of fine, unirritating sprays; atomized alkaline fluids were employed for cleansing; local sedation was practised, and iodoform freely used. Constitutional medication was considered of much importance to quiet cough and favor cicatrization, promote sleep, relieve restlessness, and to nurse and nourish the enfeebled body. Change of climate was also considered essential. By carefully combining these means, a patient threatened with death by starvation from painful deglutition, was restored to strength and comfort. One vocal cord had been almost entirely eaten away, firm cicatricial tissue forming the excavation.

He showed there was an analogy between certain forms of phthisical ulcers in the larynx and simple superficial ulcers in the mouth; that sores in the mouth were sometimes produced by the irritant action of perverted buccal secretions upon slight wounds. A pellicle of shellac varnish, or an eschar, afforded protection and facilitated healing. If the lesion happened upon a part in frequent motion, it was converted into a severe ulcer, producing a train of constitutional symptoms resembling in certain respects those of ulcerative laryngeal phthisis. He believed the incipient wound of phthisical ulcers could be caused by a violent cough; constant motion, and acrid discharges from the lungs, completed the analogy. Certain forms of phthisical ulcers, easily recognizable, could be cured. Far advanced phthisical ulcerations invariably proved fatal.

A new laryngeal powder-blower was exhibited, for the treatment of laryngeal phthisis.

The papers of DRS. INGALS and JARVIS being upon the same subject, were then discussed together.

DR. S. JOHNSTON remarked, regarding the cases of laryngeal phthisis, that the only one which had come under his observation where a cure had been effected, was that of a lady who had consulted him some years since, complaining of a chronic cough. Laryngoscopic examination revealed an infiltrated epiglottis with its under surface studded with punctæ, which subsequently coalesced, forming a round ulcer. Physical examination revealed no signs of phthisis. He used a spray of one grain of sulphate of zinc, and three grains of carbolic acid in solution; and internally a mixture of hypophosphite of lime and soda with glycerine and infusion of cascarilla; there was no application of powders or pigmentæ. In three weeks the ulcer was healed. The patient had recently died of diphtheria, and this disease manifested itself especially upon the surface which had been attacked some years before, and which had healed.

DR. DONALDSON stated that he thought persons suffering from laryngeal phthisis could be relieved by local treatment, astringents combined with sedative sprays, powders of iodoform, and antiseptic inhalations combined with the local treatment. In case deglutition is painful, the patient should be sustained by the injection of food through small œsophageal tubes. He spoke of a case where he had fed a patient daily in this manner for six weeks; the case apparently recovered, and two years afterward was alive, and was now living somewhere out west.

DR. BOSWORTH said it seemed to him that in the whole question of the treatment of laryngeal phthisis, there is the element of doubt of the correctness of diagnosis. What constitutes laryngeal phthisis? Are not many cases of this disease reported which are nothing more than superficial erosions of the laryngeal membranes? He wished there was some way in which the matter could be decided. In his own view, there was but one morbid process in the larynx which constitutes this disease: this process manifests itself in every case in virtually the same way, and runs the same course. It is manifested in three stages: first, the stage of inflammatory thickening occurring in the large majority of cases in the arytenoid cartilages. It constitutes what is generally called the club-shaped arytenoids. This same inflammatory swelling may, however, make its appearance on the epiglottis, where, from its location, it becomes an exceedingly grave matter, constituting what is called the epiglottic form of the disease. In a certain proportion of cases, this swelling develops on the ventricular bands, but never,

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he thought, on the vocal cords. In this state of the disease, tubercle is not present, as has been so conclusively shown by Dr. Cohen. In this state, then, he thought there should be no question as to the curability of the disease, for he certainly found in his own experience that a cure might almost be promised. The second stage is marked by the development in the swollen membrane of small, rounded, gray spots, apparently just beneath the surface, they are easily seen on inspection dotting over the surface. If tubercle is ever inspected by the naked eye, these spots are the tubercle. I have watched this process on the tongue, and have watched the evolution of these little masses, and have seen them break down and develop into small points of ulceration, which constitutes the third stage. These points extend their borders, and then develop the true tubercular ulcer. Now, this tubercular ulcer is unmistakable: it is a wasting process, superimposed upon an interstitial growth, so that we have the apparent incongruity of an ulcer resulting in a greater bulk than the original contour of the part. The surface of the ulcer is coated with ropy mucus, never with pus. The appearance is very light. All cases of this disease which have come under my notice conform to this course. As to the treatment, some years ago he had written on this affection, and had then insisted that no application should ever be made which gave pain; and secondly, the first indication of what would relieve pain, and promote the well-being of these cases, was to carry out the following: First cleanse the part with alkaline spray, then apply morphine to relieve pain, and, third, apply iodoform; by this plan he has seen a number of cases recover, he believed, as the result of treatment. The above plan should be carried out every day.

DR. J. SOLIS COHEN had reached the room so late as to have heard the last sentences only, and was, therefore, unfamiliar with the train of thought taken in the paper, and hardly prepared to join in its discussion. In reply to a direct question from the President, he stated that in his own experience cures were exceedingly rare, and these cases could not be recognized beforehand. His own experience was that so many cases of tuberculosis of the larynx indicated so many funerals.

DR. KNIGHT said that he regarded a laryngeal implication a very unfavorable complication of pulmonary phthisis. Although an arrest of the laryngeal disease and relief of the local symptoms may occur, the patient goes down hill from the manifestation of the disease in other organs. Mild treatment, principally cleansing the parts, undoubtedly did, oftentimes, great service in relief to the patient and in facilitating the arrest of the local disease.

DR. ASCH said that his results, unfortunately, had been the same as those of most of the speakers, and it would afford him great pleasure if there could be discovered a specific treatment for this most unfortunate disease; he feared it had not yet come to light. He had had some cases in which the ulcers were cured, but in each of these there had always been some specific trouble, hereditary, or acquired, which accounted for the ulcerations. In all these cases there had been extensive pulmonary trouble, but the disease of the larynx was due apparently to other complications.

DR. LINCOLN said he desired to make a suggestion in regard to the indications for the use of iodoform in cases of laryngeal phthisis, which may serve to explain the different opinions entertained as to its utility, and especially the discouraging opinion held by Dr. Ingals as to its advantages. Some ten years ago, he published a series of cases illustrating the utility of applications of iodoform in powder or spray (ethereal solution). He believed that he had here stated that in cases of laryngeal phthisis, iodoform was chiefly useful where there was a solution of continuity, *i. e.*, where there was ulceration, and not where there was hyperplasia with engorgement of the bloodvessels and dryness of the mucous membrane. He would further suggest as an addition to the mild and sedative spray of carbolic acid, tannin, or morpheous solution, the addition of a few drops of essence of peppermint (two to four drops to the ounce of solution). The constant and universal testimony of his patients as to the comfort derived from the use of this medicament is most gratifying, and leaves no doubt as to its usefulness.

DR. MAJOR stated that, in his opinion, if laryngeal phthisis be truly a local tubercular development, it is the result of a tubercular condition of the system; if an indolent ulceration occurring in the tubercular subject, it was the result of systemic depravity arising therefrom. It seemed reasonable to suppose that any circumstances whatever which would improve the general health and check the development of pulmonary phthisis would also have the same influence on the presence of tubercle occurring in the larynx. It was generally conceded that a certain pressure and moisture of atmosphere were necessary to develop tubercle. Now if the patient were removed to an atmosphere sufficiently dry and rare to hold in check pulmonary tuberculosis it would have a like good effect on a laryngeal condition.

DR. DUNCAN had seen many of the cases of laryngeal phthisis in which the laryngeal ulcers were healed by the prolonged, daily, mild applications mentioned by Dr. Bosworth, and he could bear testimony to the fact that the ulcers disappeared and the laryngeal symptoms were removed; this did not stop the advancement of the pulmonary phthisis, but removed the annoying and painful symptoms in the larynx.

DR. INGALS, in closing the discussion, said that he was much gratified in the debate which had been excited, and considered that the object of his paper had been accomplished. The question of diagnosis was raised by Dr. Bosworth, but he was not prepared to accept the dictum that the peculiar boggy swelling necessarily accompanied the disease. He thought that when the evidences of pulmonary phthisis were unquestionable he would not hesitate to pronounce coexisting laryngeal disease of the same character, even though the swelling did not appear; but when this swelling exists together with the pulmonary signs, the diagnosis is certain. He noticed, from what had been said, that prolonged mild treatment seemed the most satisfactory, and here the key-note had been struck, it was true. With Dr. Cohen, he believed that quite a large number of cases would get well if given time. His fear that iodoform is of little use in these cases, is due to the fact that patients in whom he had used it continuously for a long time had shown no local evidence of change until other remedies had been substituted.

The patient he referred to who was sent to Colorado, was sent there because of the pulmonary disease. He believed that the dry air is not desirable in most cases where the larynx is tuberculous.

DR. JARVIS said that the difference in appearance in the phthisical and syphilitic ulcer is distinctive and there was no excuse for confounding the red areola of the latter with the pale-grayish appearance of the former. The coexistence of the gray ulcer and the pyriform thickening over the arytenoid with the phthisical pulmonary signs, also tends to confirm the correctness of the diagnosis, inasmuch as inhalations have no curative effect upon the simple traumatic ulcer in the mouth. He failed to see what benefit could be derived from their use in the treatment of the ulcers of laryngeal phthisis. As iodoform so markedly benefited the simple buccal sores, so we might find it a valuable application in ulcerative laryngeal phthisis.

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PARESIS OF THE CONSTRICTOR MUSCLES OF THE PHARYNX, SIMULATING SPASMODIC STRICTURE OF THE ŒSOPHAGUS, WITH REPORT OF CASES.

Dr. F. H. Bosworth reported some clinical observations made on five cases under his care which simulated spasmodic stricture of the œsophagus. He considered the condition as purely myopathic and not true paralysis, like that following diphtheria for instance, or that in glosso-pharyngeal palsy or other neurotic disease. They were in adults, two male and three female. The condition was associated with some hyperæsthesia, but to mechanical and electrical stimulation there was a decided loss of contractility. The treatment recommended was rest, the interdiction of solid food, strychnia, fresh air, and bathing, and in all but one case this had been successful.

DR. COHEN had regarded such cases chiefly as hysterical, and the greatest success in treatment under his own care had followed moral treatment, enforced swallowing under the supervision of a competent nurse, himself being present at the earliest attempts.

DR. KNIGHT remarked that the loss of contractility of the muscles under electrical stimulus in the cases reported, made them distinct from those coming under his own observation. Most of the cases he had had were due to hyperæsthesia, and were overcome by passing bougies, and were relieved by administering sedatives and remedies calculated to relieve abnormal muscular action.

DR. LANGMAID said that if his cases had been similar to Dr. Bosworth's, he would say that he had always been satisfied with the results obtained by the repeated passage of graduated bougies.

DR. BOSWORTH said that hysteria was excluded from the diagnosis by the fact that there was sluggishness of the muscle, not only in respect to electricity, but to mechanical stimulation. The hyperæsthesia had been suspected of causing the symptoms, but in some cases there was anæsthesia; in most of these, undoubtedly the mucous membrane was unduly sensitive, and with decided feebleness of the muscle.

Adjourned.

The Annual Dinner of the Association was given at Delmonico's, in the evening at 7 o'clock.

TUESDAY, MAY 22D.—SECOND DAY.

MORNING SESSION.

DR. T. R. FRENCH, of Brooklyn, read a paper on

PHOTOGRAPHING THE LARYNX.

He stated that, with the assistance of Mr. George B. Brainerd, an expert amateur photographer of Brooklyn, he had made during the past year numerous experiments with various forms of apparatus.

He demonstrated last year that the larynx could be photographed, but with that process the throat mirror and camera were in fixed position, and the head of the patient had to be drawn up to the mirror and arranged to suit its position. That of course necessitated a very tolerant throat in order to succeed. We realized that photographs taken in that way could have but a limited value in the study and demonstration of diseases of the larynx, and, therefore, our objects this year have been:

1. To simplify the procedure, and so convert that which before was only an interesting experiment, into an operation of practical utility.

2. To take a better photograph. In the fulfilment of both of these objects he believes that they have been successful, for as he showed further on, they have adopted a hand camera with which the larynx of persons having only fairly tolerant fauces, can in the majority of instances be photographed by any expert laryngoscopist; and presented a number of photographs taken with the stationary apparatus, which are an improvement upon last year's results.

The sources of illumination used in the experiments made this year were unaided sunlight, condensed sunlight, oxyhydrogen, magnesium, and electric light. The experiments with the electric light were made with one of Wood's 6000-candle power focussing lamps.

The best results were obtained from condensed sunlight with the plane reflector.

The stationary and hand cameras were then shown, and the procedures illustrated and explained. Many photographs of normal larynges taken with the stationary camera, and normal and diseased larynges taken with the hand camera, were exhibited. Those taken with the hand camera are so small, that unless enlarged, can only be satisfactorily seen with a magnifying glass.

Beside normal larynges, the photographs showed perichondritis of the arytenoid cartilage and swelling of the ventricular band in phthisis, growth in the larynx, and approximation of the ventricular bands during spasm. Also portions of the posterior nares showing hypertrophied membrane from catarrh.

The paper concluded as follows: The results of the experiments made this year may be summed up as follows:

1. Better photographs have been taken with the stationary apparatus than those of last year.

2. A camera has been so adapted that it can be held in the hand and be quickly placed in position. This makes it possible to photograph the larynx in patients whose fauces are only moderately tolerant.

3. The photographs are taken instantaneously by a drop-shutter, thus making it possible to photograph the larynx even if the parts are in motion.

4. The parts reflected in the mirror are alone exposed, thus avoiding the confusion which arises when the mouth and lips are included and out of focus.

5. As the apparatus is so small, and the exposure is made instantaneously, if desirable, photographs can be taken without the patient being aware of the object of the procedure.

6. Several diseased conditions of the larynx have been photographed. This is an important step in advance, for we believe that it is the first time that it has been accomplished.

7. Portions of the rhinoscopic image have been photographed.

The photographs show, among other things, hypertrophy of the mucous membrane covering the posterior portion of the nasal septum. So far as we are aware, this is the first time that any portion of the posterior nares has been photographed.

By request of the author, discussion on the paper was postponed until the end of the morning session, in order that Fellows might have an opportunity of examining the photographs presented.

In the absence of H. A. Johnston, M.D., of Chicago, the author of the paper, Dr. MacKenzie, of Baltimore, was appointed to read his communication on

FIVE CASES OF CONGENITAL TUMOR OF THE LARYNX.

DR. H. A. JOHNSON, of Chicago, reported these cases, because the subject has not received the attention at the hands of laryngologists which it deserves. With the exception of the monograph of Causit, published in 1867, there has been but little attention given to this class of cases. It seems probable also that congenital troubles of this character escape detection. In the absence of articulate speech, the abnormal condition of the voice is not always recognized. It is also quite possible that cases of laryngeal tumor are occasionally taken for thymic asthma, and possibly for cardiac malformations.

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Case I.—Female, ten weeks old; the face livid; extremities cold; pulse small and feeble. From birth, the child had breathed with great difficulty. There had been hoarseness and spasm. The patient died three days after the consultation. At the autopsy, there was found in the larynx a papillomatous tumor, nearly filling up the glottic chink.

Case II.—Sixteen months old. She had suffered from birth with hoarseness and paroxysms of dyspnœa. At times there was great difficulty of breathing, and this was succeeded by an interval of nearly normal respiration. Spasm was especially noticed during and after crying. Only twice did the voice become entirely extinct. Shortly after coming under observation, whooping-cough was contracted, which was mild in character, and did not give rise to any alarming symptoms. During one of the paroxysms of coughing, a mass of reddish matter was expelled, which, upon examination, was found to consist of a papillomatous growth, covered with mucus. The tumor was of the size of a small bean (alentil). From this time, the hoarseness disappeared, and, with the recovery from the whooping-cough, there was no more disturbance of respiration.

Case III.—F.; was three years old, and of a good, healthy appearance. From birth, the cry was unnatural, hoarse, and croupy. There had also been paroxysms of dyspnœa. These attacks became more frequent and more severe as he grew older, and were believed to be caused by a congenital tumor in the larynx. In the spring of 1877, the dyspnœa became more constant.

It was thought best to perform tracheotomy, which was followed by complete relief to the dyspnœa, and the patient regained his general good health. During the next year there was no progress made in the effort to remove the tumor through the natural passages. In the meantime there had begun to develop spasms, though the canula was free, and so far as we could judge there was no obstruction in the trachea. These spasms finally became so alarming in their character that in March, 1878, thyrotomy was performed. A large papilloma filled up the larynx, it extended into the sub-glottic space, and seemed to make great pressure upon the walls of the larynx. It seemed probable that this pressure was the cause of the spasm, as there was no other explanation found. The patient did well for the next three days, when upon exposure he contracted pneumonia from which he died on the eighth day after the operation.

Case IV.—The voice was hoarse at birth, the cry was never natural. For some months before time of observation there had been almost constant dyspnœa with spasms of the glottis, which had latterly become alarming. The lips were blue, the pulse weak and small, there was considerable emaciation, and the struggle for breath was constant. Tracheotomy gave great relief to the distressing symptoms, but death followed within twenty-four hours. The post-mortem revealed a papillomatous tumor blocking up the glottis, leaving only a small opening through which respiration was accomplished.

Case V.—A well-grown male child, aged fifteen months, who since birth has had a rough, hoarse cry. Respiration was but slightly disturbed, but on careful observation the expiration was found to be slightly embarrassed, and on attempting to cry the voice became entirely extinct, and there was great difficulty in expiration. Laryngeal tumor, congenital, and probably papilloma, was diagnosed. As there was no urgent symptoms demanding immediate operative procedure, I advised that the child be taken home, and at some future time an effort be made for the removal of the growth. If in the meanwhile, the dyspnœa should become constant and urgent symptoms should arise, I advised that tracheotomy be performed.

About the first of June, 1880, I learned by letter from the parents, who were then living in the State of New York, that the tumor had evidently enlarged very much, and that breathing was so labored that suffocation was feared. By my advice, the child was taken to New York City, to consult Dr. G. M. Lefferts, from whom I learn that the patient, when seen by him, had dangerous dyspnœa, and urgent laryngeal spasms. By laryngoscopic examination, the complete blocking up of the larynx by papillomatous growth was recognized. Dr. Lefferts recommended tracheotomy at once, and explained to the parents the necessity of the thyrotomy at a future date. The tracheotomy was performed on the 10th of June; the child did unusually well until the 13th, when it developed the early signs of pneumonia, and died the next day.

At the autopsy, the larynx was found filled by papillomatous growths, fringing the whole of the vocal cords, lying at the base of the epiglottis, and in the inter-arytenoid commissure; only opening for the respiratory current posteriorly at the cartilaginous glottis, and very small.

In Case II., the spontaneous expulsion of the tumor is interesting. I have known similar results in adults. I have also seen several cases of papillomatous growths in the larynx, in which the patients ascribed the trouble to whooping-cough.

DR. KNIGHT said that in this connection he would like to state his own conviction in regard to the proper treatment of these papillomatous growths in very young children, in order to see how it might compare with that of other Fellows of the Association. In consideration of the gravity of the operation of thyrotomy, the great liability to permanent impairment of the voice, and the risk of the recurrence of the growth, he thought that the proper course to pursue in such cases is to insert a tracheotomy-tube, when urgent dyspnœa demands it; then wait for a not impossible spontaneous expulsion, or until the child gets old enough for operation per vias naturales.

DR. J. O. ROE said that the reading of Dr. Johnson's very interesting paper and the report of his cases recalled to him very vividly two cases of undoubted congenital growths of the larynx.

The first case he saw about five years ago. It was that of a child, two years of age, referred to him by Dr. Eli, Sr., of Rochester. From infancy, this child had had a very hoarse, croupy voice, and was unable to cry aloud. This condition continued to increase until he was one year old, when he began to have considerable difficulty in respiration, especially after exertion. From this period to the time when he saw him, the dyspnœa had not increased, and his condition had apparently remained stationary. He succeeded in making a laryngoscopical examination, which revealed a growth, evidently papillary in its nature, springing from one side of the larynx—he believed from the right side; he advised that tracheotomy be performed, but the parents preferred to defer the operation until it became more urgently called for. The family afterward moved away from the city, and he had not since heard from the child.

The second case was that of a child, about eight months old, which had not been able to cry aloud since birth, and had had frequent attacks of marked dyspnœa. As this condition was unassociated with any inflammatory trouble, the family physician brought the child to him for laryngeal examination. After several attempts, a growth was discovered in the upper portion of the larynx. It was advised that tracheotomy be performed at once, as the child was in imminent danger of suffocating. The operation was then performed.

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The child progressed without accident; it has worn the tube since; and is now a stout, healthy child. In this case he also advised that the operation of removing the growth be deferred until it could be attacked per vias naturales, unless it should grow sufficiently to require operative interference before. In this respect he agreed with Dr. Knight, that the operation of thyrotomy should not be performed unless it be imperatively required by the condition of the patient.

DR. COHEN referred to the frequency of "colds" in early life, and to the well-known fact that papillomata frequently followed the catarrhal inflammations of the larynx in measles, croup, diphtheria, and whooping-cough, and he was rather inclined to believe that growths of this character that are really congenital are rare. He was opposed to the radical operation when not absolutely necessary; not so much on account of prospective injury to the voice, for that was a secondary matter to preserving the life of the patient, but he feared the cicatricial tissue of the divided skeleton of the larynx would materially interfere with the proper development of the larynx at puberty. He would also call attention to the fact indicated by the result of two operations in the paper that they are attended by a certain risk of pneumonia. He had long recognized this risk in all operations upon the cervical region, even when the air passage was not open, and was inclined to attribute it in part to the lowered temperature, to which the pneumogastric nerve and its ramifications are subjected. He therefore deemed it important that such operations should be performed in well-warmed apartments, and that great circumspection be used for several days after the operation.

DR. GEORGE W. MAJOR said that a clearly congenital case of laryngeal papilloma had not come under his observation; cases, however, had presented themselves so early in life that some interest might attach to a short narration of them. The first case, a child of two years, was referred for an examination on account of aphonia and dyspnœa. Active treatment was deferred until May 12, 1881, when a tracheotomy was performed. Since that date a tube has been worn continuously. In August, 1882, a quantity of papillomatous growths were expectorated, and the voice and breathing remained fairly good for at least two months, when they gradually became interfered with. A few weeks ago an examination showed extensive redevelopment of the growth, which was above the level of the cords. Another case was that of a child, aged ten months, with a hoarse voice from infancy, and occasional attacks of difficult breathing. It was seen for the first time at about its second month of life in consultation, and not again until a few days previous to its death. A tracheotomy was then urged, but it was so long delayed that when performed life only lasted twenty-four hours after it. On post-mortem examination, papillomatous growths were found in the larynx.

In regard to thyrotomy, he considered that even at the risk of permanent injury to the voice, it is a preferable operation to one through the cricoid cartilage, the acknowledged low vitality of which renders the operation liable to serious consequences, and he considered this tendency was much aggravated by the introduction of a tube between its cut surfaces and the resulting strain on its posterior plate.

DR. W. F. DUNCAN related the history of two cases of papilloma in children under three years of age. In both the diagnosis had been made with the laryngoscope. The parents of the first case refused to allow tracheotomy to be performed, and the child died from suffocation. The second case was operated upon and the tumor was removed. The child made a good recovery.

DR. WM. PORTER, of St. Louis, communicated a paper on

LARYNGEAL PARALYSIS FROM ANEURISM.

Laryngeal paralysis, he said, though a common sequence of thoracic aneurism, is not always the first evidence of the lesion. He presented notes of three cases in which the patients had, when first seen, no other subjective synopsis than those caused by the laryngeal condition.

The first had hoarseness and slight dyspnœa for two months, gradually increasing. There were no evidences of chest trouble, but by the laryngoscope could be seen the left cord fixed nearly in the median line. The opinion that there was pressure upon the left recurrent nerve was confirmed by the sphygmographic tracing of the left radial artery, which was characteristic of the lesion suspected. The tracing at the right wrist was normal. In a few months, the direct evidences of aneurism were easily found, and the affected cord receded to the "cardiac" position, showing that both adductor and abductor filaments of the recurrent nerve were pressed upon. The patient had since died of rupture of the aneurism.

The second case resembled the first in the more important particulars, but, although yet alive, has undoubted evidence of aneurism.

The third case, but recently seen, was one in which the hoarseness and change in voice were due to paralysis of the abductors of the right cord. No intra-laryngeal cause could be found, and as over the region of the ascending aorta near the arteria innominata, a bruit could be heard and slight thrill felt, an aneurism at this point was diagnosed. In this case the sphygmograph showed abnormal tracing at each wrist, which aided in fixing the location.

It is not the rule that an aneurism of this part of the aorta should press upon the right recurrent nerve unless of large size. The proof of aneurism, however, is almost complete, and there is nothing else as yet found to cause the laryngeal paralysis. The patient returned to his home in the South, and Dr. Porter has not been advised of any change in his condition.

In all of these cases the patients sought relief from the laryngeal condition not knowing of the thoracic lesion, and, in the first two, there was nothing in the chest to indicate it. We know that aneurism may exist without appreciable bruit or impulse, but these symptoms as well as increased area of dulness, are generally present when there is lesion enough to produce pressure upon the laryngeal nerve, and, in this, these two were also exceptional.

In all, as is generally true, the abductor filaments were first affected, but in the first as the pressure became greater, the adductor filaments became also impaired, and the changes in voice and respiration consequent were very interesting.

In these instances the sphygmograph gave valuable aid. It may not always give evidence of existing lesion, but where certain deviations from the normal tracings are obtained we can certainly trust its corroborative testimony. The importance of a laryngoscopic examination is self-evident in cases like those reported.

DISCUSSION ON PHOTOGRAPHING THE LARYNX.

DR. KNIGHT spoke in commendation of the work of Dr. French, and expressed great gratification at the improvement made since last year. Although the members probably were not competent to express a decided opinion upon the subject, or to discuss the method, he thought that the pictures submitted showed a great gain, and demonstrated that something really practical might ultimately come from photographing the larynx.

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DR. CARL SEILER noticed a decided advance in the photographs over those of last year. As an amateur photographer himself, he could sympathize with some of the difficulties experienced by Dr. French, and suggested that possibly some improvements might be made in the apparatus, especially in the management of the drop-shutter.

DR. FRENCH said that he felt greatly encouraged by the remarks that had been made, which would stimulate both Mr. Brainard and himself to prosecute their experiments. With regard to Dr. Seiler's remarks about the apparatus, he thought that he would be able to introduce some changes which would improve it; he did not consider the apparatus perfect. Since he had begun this work he had received many suggestions which had greatly assisted him, and he hoped that by next year the photographs would be greatly improved, as well as the facility with which they can be taken.

Dr. Johnston asked for the reading of Dr. Porter's paper on "Laryngeal Paralysis from Aneurism," and offered a motion to this effect, which was not adopted by the Association.

At the close of the morning session, Dr. DeBlois exhibited some powder-blowers, made after the pattern of the Davidson atomizer. This construction permitted their being held in one hand while in use, thus allowing the other hand free to hold the tongue depressor. The delivery-tubes were of hard rubber, and could be turned either up or down as desired.

The Association then adjourned.

AFTERNOON SESSION.

DR. LOUIS ELSBERG read a paper on

REFLEX PHENOMENA DUE TO NASAL DISEASE.

Dr. Elsberg said that although some of the phenomena of his cases were not reflex, most of them were, and he considered it of clinical advantage to bring them all before the Association. Twenty years ago he observed a case of chorea in a child which had followed exposure to cold, and was relieved by treatment of coryza. Since then he had observed a number of other conditions which were attributable to nasal disease. These were principally (1) melancholia, (2) chorea, (3) reflex epilepsy, (4) neuralgia (especially supra-orbital headache and migraine), (5) gastric disturbances and diseased conditions of the upper digestive tract, as reflex pharyngitis, uvulitis, tonsillary enlargement, (6) uterine disorders, and affections of genito-urinary mucous membrane, (7) pain and disordered functions of the organs of sense, especially of smell and taste, but also of hearing and sight, (8) numerous affections of extra-nasal respiratory tract and organs of voice, among which are especially prominent the various alterations of the speaking and singing voice, laryngeal cough, glottic spasm, and bronchial asthma.

He recalled the fact that redness of the surface of the nose is often connected with nasal obstruction, and can be relieved by appropriate treatment of this condition. Among the curious instances of reflex disorder, he referred to a man suffering with chronic nasal catarrh, who always had an attack of sneezing during coitus.

DR. MACKENZIE emphasized the importance and insisted upon the great frequency of cough as a symptom of nasal disease. Clinical observation and experimental investigation had led him to the following conclusions:

1. That in the nose there exists a well-defined and sensitive area, whose stimulation, either through a local pathological process, or through an irritant introduced from without, is capable of producing an excitation which finds its expression in a reflex act or in a series of reflected phenomena.

2. That this area corresponds, in all probability, with that portion of the nasal membrane which covers the turbinated corpora cavernosa.

3. That reflex acts are produced by stimulation of this area, and are only exceptionally evoked when the irritant is applied to other portions of the nasal mucous membrane.

4. That all parts of this area are not equally susceptible to irritation, the most sensitive spots being, probably, represented by those portions of the membrane which cover the inferior half of the lower turbinated bone, and the erectile body on the septum immediately opposite.

5. That the susceptibility to irritation varies in different individuals; in some the slightest touch is sufficient to produce the reflex act, whilst in others it can only be produced after long-continued irritation.

That the reflex tract is limited to the above area is rendered probable by the following clinical facts.

1. That where reflex cough exists this is the area chiefly, if not solely, involved.

2. That the act may be induced by artificial irritation of the diseased structure.

3. That it may be dissipated by topical applications to, or removal of, the diseased membrane.

4. That polypi give rise to reflex phenomena only when they arise from or infringe upon the sensitive area.

5. That in cases where foreign bodies, such as pins, become impacted in the above area, reflex cough will sometimes occur, which latter is not observed when they lodge in the non-sensitive part of the nose.

DR. MACKENZIE had submitted a paper on the above subject to the Maryland Academy of Medicine, which would appear in the July number of the AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

DR. ROE said that the subject of reflex phenomena is a very interesting one; the more clearly the subject is understood, and the more thoroughly it is studied, the more readily will we be able to discover the cause of symptoms manifested in the derangements of one organ by disease located in another organ sometimes quite remote.

A very frequent illustration of the reflex derangement induced by nasal disease is seen in many cases of asthma. The association of asthma with nasal polypi is well known, but its association with hypertrophic turbinated tissue is quite often overlooked, particularly in those cases in which the nostrils are not greatly obstructed. By way of illustration, the speaker mentioned the case of a patient who consulted him last winter for severe and frequent asthmatic attacks to which he was subject, particularly at night. Examination revealed a mild form of chronic bronchitis, and in the nose considerable hypertrophy of the turbinated tissue over the inferior turbinated bone. In addition to other treatment, the hypertrophied tissue in the nose was removed, which gave almost immediate relief to the asthmatic attacks. Shortly after, he was obliged to take a car trip for three days. During the whole trip, he was quite free from any asthma or dyspnœa. Before this time he had not been able to travel by rail, particularly at night on sleeping cars, without suffering severely from dyspnœa, and being obliged to sit up all night and smoke, to be able to breathe with any degree of comfort. Many other cases could be cited in illustration of these phenomena of reflected symptoms of disease in the nose.

DR. SEILER said that he had reported in the *Archives of Laryngology* two cases of reflex irritation due to nasal disease, and gave the history of a case of chorea due to hypertrophies which was cured by the removal of the hypertrophies. He also mentioned the existence of cases, which he believed to be neurotic, in

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which a sudden copious discharge from the nose, accompanied by sneezing, headache, and so forth, of a watery fluid, attacked the patient, and continued for some time, to disappear as suddenly as it had set in.

DR. BOSWORTH said that Dr. Elsberg had opened in this subject a wide and most interesting field for discussion. The speaker wished to refer to but a single point; it would be better, it seemed to him that in speaking of nasal catarrh, we should define the especial disease causing the catarrh; in spasm of the glottis, for instance, he had met with reflex symptoms in a number of cases of nasal disease, but it had been invariably due to a rhinitis atrophica, never to the hypertrophic form of the disease; in these cases the attack was of the most alarming character, and occurred in young as well as in adults; the youngest patient was six years of age; the oldest, a man fifty-five; the disease was entirely relieved, and no second attack occurred in any case, as long as the nasal membrane was kept thoroughly moistened.

DR. JARVIS said that a case of asthma caused by complete closure of the nares, by a deviated septum, gelatinous polypi, and turbinated hypertrophy, had come under his observation; the patient for several years had not omitted to rise early every morning and seek relief in going to the window for fresh air. Removal of the abnormal tissues, in a few weeks relieved the patient of the asthmatic attacks.

DR. CLINTON WAGNER then read a paper on

SMELL, HYGIENICALLY AND MEDICO-LEGALLY CONSIDERED.

He discussed the physical nature of odors, and pointed out the fact that many of them owed their characters to odorous particles held in suspension, while others were purely gaseous. The smells of various diseases, and different individuals were considered, and the fact that the sense of smell was analogous to that of sight in many respects; it can be cultivated and rendered keen by exercise, can be dulled by fatigue or over-use, and can be suddenly destroyed by overpowering odors. Where the sense of smell is lost by public nuisances, damages may be obtained from the municipality. The existence of odors is one important indication of the existence of certain causes of disease, which should be removed and destroyed.

DR. ROBINSON said he would make one or two remarks with regard to the subject of the paper. There was one fact which had always appeared to him to be of considerable importance, with regard to which there prevailed certain views which are erroneous; especially in the community at large there is a tendency to confound two things which are quite distinct—these are "deodorization" and "disinfection." These words are not synonyms, nor even are they correlated. He did not mean to say that odors are not of great value, as well from a medical as from a medico-legal point of view, nor to deny that it is not of importance to destroy or remove odor, but there is certainly an impression that by so doing we remove the sources of disease. He expressed the opinion, on the contrary, that the use of disinfectants do more harm than good; he might illustrate this in one or two ways; for instance, in this city, during an outbreak of smallpox, scarlet fever, or other epidemic, there is a popular power for the Board of Health to use carbolic acid freely; but when we bring strict analysis to bear upon this subject, and ask what we are doing when we use a disinfectant, let us at the same time inquire, in what does the contagion consist? Upon what is the carbolic acid supposed to act? Are we, in fact, rendering an area or atmosphere more healthy by its use? We must confess that we do not know in what the infection exactly consists; we do not know whether we are destroying its cause or not; indeed, there are many facts which prove the contrary, and when we think that we are removing the cause, we are simply covering it, and perhaps permitting extension of disease. He cited a statement to the effect that, during an epidemic of yellow fever in New Orleans, in that part of the city where carbolic acid had been used most freely, the epidemic prevailed most extensively, and was more fatal. Must we not conclude that wherever we remove a bad odor, we do not necessarily act upon the noxious agent or contagium of the disease. He believed that we do not exactly know in what the contagium of smallpox, yellow fever, and similar diseases really consists. Some of the Fellows might take exception to this statement, as much attention had been attracted to this subject by the journals; but we really do not know the noxious agent, although we have learned something of its habitat and its means of communication. We have noticed that where sickness of an epidemic character is found in a house, physicians are very apt to go to the sewer connections, and if they find an odor, they say sewer gas, and conclude this is the reason; and yet, in the tenement-houses sewer gas is present all the time, and yet the relative mortality or sickness is not affected thereby.

DR. CHAMBERLAIN said that the popular idea that all bad odors are dangerous is erroneous; the important element is the germ of the disease, and upon the presence or absence of that the danger to health depends; a bad odor may, however, give warning of danger. Thus in a workshop one shop is especially unhealthy, by reason of certain offensive odors which exist near it; cases of slight illness were frequent and typhoid fever found many victims among the operatives. A Quaker surgeon had said "a strong smell is healthy." He believed that as physicians we have nothing to do with smells, at least in the hygienic point of view, although, when found in nature they lead us to seek for putrefaction, yet the same odor may be made artificially in the laboratory without putrefactive changes.

As long as the odor merely conveys to the brain the information as to its source and nature it does no harm, but when it carries at the same time the germs of disease into the system it is dangerous. So far as we know these diseased germs they have no smell, and, therefore, as far as the mere character of smell is concerned we have nothing to do with odor.

DR. WAGNER in closing the discussion, stated that he thought that he had been misunderstood by Dr. Robinson; he had not suggested that noxious odors should be removed by disinfectants, but that the cause being ascertained remedies should be applied with a view of removing it. In regard to Dr. Chapman's remark that bad odors were of no consequence, and that they indicated nothing, he would say that if the warning given by foul odors in the Hoboken School had been heeded, many lives would have been saved.

DR. HARRISON ALLEN, of Philadelphia, then presented some remarks on

ASYMMETRY OF THE NASAL CHAMBERS WITHOUT SEPTAL DEVIATION.

The subject of asymmetry of the nasal chambers, he said, can be considered from two points of view, viz., from the changes in proportion due to deflection of the nasal septum; and second, from the standpoint of inequality of the chambers themselves in subjects in whom the nasal septum is straight. The group last mentioned will form the basis of the present communication.

As a result of observation of ten examples of crania, selected from the anatomical cabinets of Philadelphia, it may be concluded that a difference in the diameters of the posterior nares can be detected. In the living

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subject, the writer has reason to believe that the same asymmetry in the posterior nares can be discerned, and that, at least in the persons of those reporting for the relief of catarrhal affections, the number exhibiting such asymmetry is much larger than would appear from the examination of crania. As the result of clinical study in this direction, extending over the last two years, he concludes that nasal obstruction may be limited to one side of the nasal chambers only; and that such tendency to obstruction may be due to the congenital narrowing of this passage, the nasal septum remaining without deflection.

It is not necessary at this time to attempt an elaborate description of this variety of conformation of the nasal chambers, with its clinical applications, but simply to call attention to a fact which appears to have escaped observation, or, at least, to have received so little attention in the minds of observers as not to enter into questions of diagnosis and prognosis of nasal disorders. It is quite evident that imperfect nasal respiration, due to the above-mentioned cause, cannot be relieved by any operation on the septum, as these operations are at present defined, and that no operation short of drilling away the entire inferior turbinated bone will be likely to afford relief.

It is interesting to remark that among the crania exhibiting the above peculiarities, the best-marked examples were found in the skulls of idiots, in whom marked asymmetry of the cerebral fossæ was also seen. It is not at all unlikely that the real solution of the subject of congenital asymmetry, without septal deflection, is to be found in the peculiarities of development of the cerebral hemispheres themselves; and that the study of this subject can not be separated from the general subject of bilaterality; that is, the general subject of right and left symmetry as controlled by the cerebral nervous system.

DR. DELAVAN said that the subject which Dr. Allen had brought to the attention of the Society in such an able and interesting manner was one which was new to most of the Fellows; it was one in which Dr. Allen was the pioneer, for in his published works and in his private investigation, he with Zuckerkandl had probably given the subject more attention than any other living observer. The lecturer had struck at the root of nasal difficulties. For several years past great advances had been made in the pathology and treatment of the nasal cavities. Unfortunately, however, most investigators had begun at the wrong end of the question, and instead of beginning at the foundation had confined their attention to the superficial structures. It is simply impossible to relieve many cases of nasal obstructions, and the conditions arising therefrom, merely by medical measures. In many instances surgical treatment would be necessary to accomplish a thorough and radical result. The speaker's own investigation had been in the direction of Dr. Allen's, and he had been greatly interested and pleased by the suggestions which the latter had given. The great importance of the recognition of these conditions of nasal malformation is, of course, with regard to their prognosis and treatment. Many of them, he believed, could only be relieved by severe surgical measures.

DR. RUFUS P. LINCOLN, of New York, then read a paper on the

RESULTS OF THE TREATMENT OF NASO-PHARYNGEAL FIBROMA, WITH DEMONSTRATION OF SUCCESSFUL CASES, TOGETHER WITH A TABLE OF SEVENTY-FOUR OPERATIONS BY DIFFERENT SURGEONS.

The neccessity for treatment, he said, arises from the course of the disease which, if not interfered with, causes great suffering, deformity, and destruction of the life of the patient.

The object of treatment is: 1. The thorough removal of the growth, with the destruction of all diseased tissue at the place of origin. 2. Avoidance so far as possible of accidents incident to operations on the naso-pharyngeal region. 3. To secure the result with the least external disfigurement. To illustrate the different methods of treatment, and their relative merits, a table of seventy-four operations by different surgeons is presented, together with three cases cured by Dr. Lincoln, by means of the galvano-cautery, écraseur, and subsequent treatment with the galvano-cautery. The galvano-cautery is shown so far to have given a greater percentage of successful results, and this method has the further advantage of being simple, less dangerous, and leaves no deformity.

DR. JARVIS said that last year he removed a large myxofibroma from the nares of a young man. The tumor was attached above the left post-nasal arch. It projected forward into the left anterior naris, extended for some distance into the right nasal cavity, and almost completely occluded the naso-pharynx. He operated twice, removing the entire polypous growth. His écraseur was employed. Although the severe strain bowed the instrument, the patient only complained of a toothache and the tedium of the operation. He carried the loop around the growth through the pharynx, afterward bringing the wire through the nose. Four hours were occupied by the operation, and, although the instrument pulsated like an artery, there was no blood lost. Four months after the operation there was not a vestige of the growth to be seen. The division of the tumor through its densest portion without pain and hemorrhage demonstrated a safe and easy method for removing large naso-fibroid tumors piecemeal, without resorting to the more formidable operations of general surgery.

DR. A. H. SMITH described a case in which he had removed a fibroma springing from the vault of the pharynx, and having a length of between two and three inches, and a thickness of one inch. The instrument employed was the Jarvis snare, the wire being passed from the mouth out through the anterior nares. The wire broke at the last moment, but strangulation had been effected, and the growth afterwards sloughed. A subsequent operation became necessary a few weeks later on account of the rapid growth of the pedicle. After the second removal, the stump was touched three times a week with perchloride of iron; there is now, four weeks later, only a small papule remaining to indicate the location of the pedicle.

DR. SEILER said that he had seen a number of cases of the kind referred to by Dr. Lincoln. In one patient, where the posterior nasal chambers were blocked up by the growth, which, with the finger he could recognize as having undergone cartilaginous changes, he had succeeded in removing the growth with a wire snare, and had afterward applied the galvano cautery. Although he was told by the patient that the growth had been previously removed about nine months before, while in the South, he had not seen since the last operation any evidence of recurrence. In another case he had great trouble in applying the snare, as the loop slipped off again and again. He finally, in the course of several weeks, removed the growth piecemeal; it weighed over four ounces. Another patient, an old man seventy-four years of age, had come to him for treatment, but as he was from the country he was obliged to let him go to a hospital. However, he removed a portion of the growth, which enabled the man to breath more freely, and he had no doubt that he could have eventually removed it entirely by the method which was successful in the preceding case. The attending surgeon at the hospital attempted to re-

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move part of the maxilla two days later, but the patient died while on the table under the influence of ether.

DR. INGALS had operated upon three cases of this kind during the last three months, although in only one was the character of the growth determined by microscopic examination.

In this case he had removed it with the galvano-cautery, and the tumor did not return; it was not very large, however—about the size of an ordinary black walnut, about two inches in diameter. In a second case he had great difficulty in surrounding the base of the tumor with the wire of the écraseur; finally, by introducing a wire in a soft catheter through the nares into the mouth, behind the soft palate, and attaching a thread to it, he succeeded in surrounding the growth with the wire. He had used the handle of Shurley, as modified by Bosworth, for holding the wire, but found some difficulty in using it with the battery, as it was short-circuited through the little wheel at the side. By substituting a lead-pencil in place of the metal wheel he succeeded in removing the growth, but thought that he possibly removed it too fast, for although there was not much pain there was excessive bleeding; the hemorrhage was finally stopped after twenty minutes, and he learned from the attending physician that the patient fainted two or three times during the evening after the operation.

DR. BOSWORTH thinks that the Association owes a debt of gratitude to Dr. Lincoln for bringing before it this splendid series of cases, successfully treated without resorting to the severer operation generally followed by surgeons; personally, he felt indebted to him for the superb demonstration.

He would like to say that he had heard during the discussion about myxo-fibroma, fibroma, and polypi, and he would like to understand what was meant by these terms. According to his opinion, a fibroma is never a polyp, and a polyp is never a fibroma.

DR. SMITH asked permission to call attention in the use of the galvano-cautery écraseur of the great advantage of drawing the temper of the wire for several inches at its ends for the purpose of facilitating subsequent manipulation.

DR. LINCOLN, in closing the discussion, said that he had nothing to add to what had been stated in the paper. He simply wished to bring these cases before the Society, and to call its attention to a plan of treatment in preference to the ordinary one of removing the superior maxilla. The operation which he proposed is much safer than the old one, after which nearly one-third of the cases died, as shown by the statistics for the last fifteen years. Some of the speakers had referred to the difficulty in attaching the wire over these growths. It is true that it requires some patience and perseverance, but with these all its difficulties can be overcome.

THE PRESIDENT introduced to the Association Dr. Holland, who had been working in Mr. Edson's laboratory, who wished to exhibit

AN ILLUMINATING APPARATUS FOR EXAMINING THE UPPER AIR-PASSAGES

DR. HOLLAND said that he regretted that he had to exhibit the instrument while it was still in an imperfect state, but he could show that with the assistance of Mr. Edson's physician, he had been successful in adapting the electric light to a glass tube for the purpose of illuminating cavities of the body. The instrument which he exhibited, was a glass tube enclosing the carbon filament, and covered by a shield for the greater portion of its extent. He stated that it works well with a small power, only two Smee cells being required. The principle is simply that of direct illumination of the cavity itself, without the use of a mirror. The defect in the instrument was that the shield did not extend far enough forward. The glass tube is larger than necessary, but is made so in order that it may not heat up so as to become uncomfortable to the patient. He stated that for himself he felt much encouraged at its success as an illuminator.

The PRESIDENT stated that directly after the close of the meeting, Dr. Lincoln had some cases which he would exhibit to the Fellows:

The meeting then adjourned.

In the evening, the Association was entertained by the President, Dr. Lefferts, at a theatre party at Wallack's, followed by a supper at Delmonico's.

MAY 23D, THIRD DAY.—MORNING SESSION.

DR. J. SOLIS COHEN, of Philadelphia, reported the essential details of a

CASE OF THYROTOMY FOR MORBID GROWTH, WITH SUBSEQUENT DEVELOPMENT OF EPITHELIOMA IN THE CUTANEOUS CICATRIX, BUT WITHOUT INVOLVEMENT OF THE INTERIOR OF THE LARYNX.

The patient, a practising attorney, aged 63 years, had been hoarse for some two years. Laryngoscopic inspection revealed a morbid growth at the anterior portion of the ventricle and vocal band of the right side. Its rapid development during a few weeks seeming to contra-indicate the propriety of intra-laryngeal efforts for its extirpation, the larynx was divided anteriorly, and the tumor removed.

Two years later a tubular epithelioma was removed from the tissues extending to the right wing of the thyroid cartilage, and two months after that another from the left side,

The suspicious appearance of the cutaneous parts in front of the larynx led to the removal of the entire tissue, which was found infiltrated with epithelioma, and the transferrence of two flaps from the chest to cover in the parts. Recurrence took place in the flaps a few months later, and the patient died from exhaustion six months after the last operation. During all this time the interior of the larynx remained healthy and the voice good. He attributed the development of the cutaneous epithelioma to irritation of the cicatrix from the shirt collar-band, notwithstanding the fact that a very low and loose band had been habitually used to avoid contact with the cicatrix.

DR. F. H. HOOPER, of Boston, read a paper on

EXPERIMENTAL RESEARCHES ON THE TENSION OF THE VOCAL BANDS.

He treated the subject under two subdivisions, viz.:

(*a*) The action of the thyro-cricoid muscle.

(*b*) The action of the expiratory blast of air.

The experiments were performed in the physiological laboratory of the Harvard Medical School, in conjunction with Prof. Henry P. Bowditch; and diagrams and figures reproduced from the original tracings and drawings by the photo-electrotype process were exhibited.

In treating of the action of the thyro-cricoid muscle, Dr. Hooper gave a historical review of the subject, showing the wide diversity of opinion regarding the action of the important tensor, commonly but incorrectly called the crico-thyroid muscle. His experiments force him to reject the theory, generally received, that its function is to tilt the thyroid cartilage downward and forward on the cricoid; and they prove conclusively that its action is to draw the cricoid cartilage forcibly upward on to the thyroid, the latter remaining practically fixed.

As regards the action of the expiratory blast of air, he said hitherto the action of the air-blast as a tensor of the vocal bands has been recognized as producing its effect (as any current of air might stretch an elastic

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membrane) merely by its force in coming in contact with them. His experiments establish the fact that in addition to the general rise of the whole larynx, as in singing high notes, the pressure of air causes an excessive and independent upward movement of the cricoid cartilage on to the thyroid, of which no mention, to his knowledge, has heretofore been made.

The facts demonstrated by the experiments made by Dr. Bowditch and himself, justify the following conclusions:

1. The cricoid cartilage is the most movable part of the laryngo-tracheal tract.

2. The thyro-cricoid muscle, according to its physiological action, should be described as arising from the thyroid cartilage, and inserted into, and giving motion to, the cricoid.

3. The air-blast, in virtue of the mechanism set forth, is a direct and important longitudinal tensor of the vocal bands.

THE PRESIDENT said that he felt that he must very cordially congratulate Dr. Hooper upon the important laboratory experiments he had made, and upon the great interest of his paper. He thought that the Fellows of the Association would hardly feel warranted in discussing the communication without having had the opportunity of giving it the attentive reading that it deserved, and would perhaps, therefore, prefer to wait until it appeared in print.

DR. HARRISON ALLEN said that he believed that Darwin in his great and now monumental work on the *Origin of Species*, made use of the term "The Imperfection of the Geological Record," in speaking of the great difficulty that biologists have experienced in endeavoring to make use of this record in any exact way in framing deductions which were not in themselves geological. While listening to Dr. Hooper's paper, it occurred to him that a similar phrase might be used appropriately in reference to anatomy; we may speak of the "Imperfections of Anatomical Record"—in considering many questions in human anatomy as this science is conventionally taught. The speaker believed that we are only too apt to look upon anatomy as a closed subject, that all the important questions with regard to the anatomy of the human body had been studied so far that it would not be profitable to pursue the subject further. This is the prevailing opinion of students prior to graduation, and too often is shared by teachers of anatomy. He thought, that it was only necessary to listen to such papers as this of Dr. Hooper's to be convinced that little exact knowledge is in our possession on the subject of synergic muscular action. Here is a little muscle in the neck, readily exposed and easily studied, and yet it has just been shown that we have had quite inadequate conceptions of the work done by it. Too often have authorities pronounced upon the action of a muscle from its form and relations; because the thyro-cricoid (generally spoken of as crico-thyroid) has a broad base from which its fibres converge to a point, as is the case indeed of the adductor-magnus, it had been hastily assumed that the broad portion was the origin and the narrow attachment the point of insertion, as in the deltoid muscle. From superficial observation its action had thus been concluded to be that described in the text-books. He thought that what Donders and Helmholtz had done for the eye, and Helmholtz for the ear, researches of the character instituted by Dr. Hooper would do for the larynx.

While listening to the paper the remarks which Hilton, of London, in his book on *Rest and Pain*, had made upon this subject had come into his mind. Hilton considered that the pneumogastric nerve controls the movements of the laryngeal muscles very much in the manner that a violinist plays upon his instrument. The motor impulse is first carried to the extrinsic thyro-cricoid muscle—as the finger of the violinist makes tense the strings of his instrument—which tightens the vocal cords; and that after this is accomplished, the motor impulse extends along the recurrent laryngeal nerve to the intrinsic laryngeal muscles to control the formation of sounds.

Dr. Allen thought that the phenomena of the expiratory blast, as described by Dr. Hooper, were in like manner reflex in character, and were to be explained by the exciting afferent impulses along the sensory filaments of the superior laryngeal nerve, and creating efferent impulses which were sent along the motor branch to the thyro-cricoid muscle.

DR. LANGMAID endorsed the President's remark, that intelligent criticism of such a paper as that which Dr. Hooper had just read was impossible without further opportunity for its consideration; but he wished to say that it met with his hearty approval, and that it seemed to him that for the first time there had been given an intelligent and precise explanation of some of the phenomena of tension of the vocal cords and voice-production.

While he believed that all notes of the singing voice should, theoretically, be produced without any increase in the force of the wind-blast, it is easy to see from Dr. Hooper's exposition of the action of the expiratory breath upon the movement of the cricoid, and the consequent increase of tension, exactly how the blast of air is called in as an assisting, supplementary factor in the production of intense high notes. Secondly, his explanation of how the concentration of the expiratory blast in the larynx, the chink of the glottis being closed, causes a certain amount of tension of the cords, reveals the reason of its frequent use by vocalists, as it does also the frequently observed fact that a singer whose conversational tone is hoarse, may still have a clear singing voice; because, as indeed was already well known, this concentration of air in the larynx constantly takes place in the singing voice on account of the continuous production of vocal sounds.

DR. HOOPER, in closing the discussion, said that he was sure that Prof. Bowditch would be as much gratified by the interest which the Fellows of the Associatien had taken in his experiments as he was himself. It would be impossible to carry on such experiments single-handed, and he felt it proper to say that if the distinguished Professor of Physiology at Harvard had not himself taken especial interest in the study of the larynx, and devoted his time and ingenuity to the details of the experiments, it would have been impossible for him to have presented the paper which he had the honor of reading before the Association.

DR. BEVERLY ROBINSON then read a paper on

AURAL COMPLICATIONS OF INFLAMMATORY CONDITIONS OF THE NOSE AND THROAT.

He referred to the importance of aural complications in diseases of the nose and throat, and divided the subject into ear disorders complicating acute throat and nose diseases; and secondly, those complicating chronic affections of this character. The morbid process in acute cases not uncommonly extends to the middle ear, but he had never seen suppurative disease of the ear following ordinary catarrhal inflammation of the nose. Disorders of the ear, therefore, should receive attention in diseases of the upper air-passages. The fact that such disorders are apt to follow diphtheria, variola, scarlet fever, measles, and similar exanthemata due to catarrhal inflammation of middle ear might, he thought, be explained, at least in some cases, by the direct extension of the inflammation, as they are more likely to occur when the throat disease had been unusually severe.

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In chronic obstruction of the air-passages, he referred to the necessity of treating the primary disease in the nose or pharynx in order to relieve any attendant symptoms of middle-ear disease, and insisted upon the value of rhinoscopic examination.

DR. MACKENZIE called attention to the influence of reflected irritation from the turbinated tissues of the nose as a factor in the production of middle-ear congestion and catarrh. In a certain proportion of cases occurring in his clinical experience, he had noticed congestion of the drum-head and other symptoms referable to middle-ear disease which could not be explained on any other hypothesis, and which were dissipated by topical treatment of the local nasal disease. He had, furthermore, succeeded in producing congestion of the membrane of the tympanum, pain, etc., by artificial irritation of the nasal mucous membrane. Cases now and then present themselves which, from failure on the part of the physician to recognize this relationship, and in the absence of well-marked nasal disease, are treated as hysterical, and their ailments are believed to be imaginary. He thought that the recognition of these facts, and the proper appreciation of their importance, would materially aid in the diagnosis and treatment of this heretofore obscure class of affections.

DR. JARVIS said that especial attention should be given to the part played by turbinated hypertrophies, gelatinoid polypi, and to the deviated septum, in the production of aural difficulties. It is not necessary that the orifice of the Eustachian tube should be occluded by the growth, pressure upon the edge of the tube may mechanically interfere with audition by disturbing the pneumatic equilibrium of the middle ear. Deviation of the septum may also occasion deafness by a coexisting distortion of the nose preventing the efflux of secretion, and favoring the extension of inflammation into the middle ear. The ease with which these deviations can be removed would warrant their immediate excision.

DR. ROBINSON said, in closing, that he agreed entirely with Dr. Mackenzie, and believed that his remarks were correct. He had, some weeks ago, been made aware of the importance of this reflex nervous influence upon the ear from nasal disease, but not in sufficient time to incorporate it in his paper. He thought, however, that a certain number of cases would find their true explanation in this way.

Referring to Dr. Jarvis' remarks, he stated that he formerly had shared his opinion as to the effects of mechanical obstruction of the upper air-passages upon the hearing of the patient, but had recently seen some cases which had led him to doubt its applicability. In a woman under his care at the New York Hospital, although the nose and pharynx were almost completely obstructed by polypoid growths, still her hearing was good. Perhaps, in view of cases like these, he might conclude that Dr. Jarvis was attributing more importance to such deviations as a cause of inflammation to the middle ear and disorders of hearing than experience justified.

DR. D. BRYSON DELAVAN then read a paper on

THE LACUNÆ TONSILLARUM.

After calling attention to the importance of the tonsillar crypts in the general economy of the organ, the lecturer went on to describe the lucunæ tonsillarum as a series of depressions formed by the reduplications of the oral mucous membrane and their contained adenoid tissue, which constitute the organ known as the tonsil. Their number is variously estimated at from eight to eighteen. Many of them are spacious in extent, and they commonly penetrate deeply into the substance of the gland, sometimes almost reaching to its hilum. There are also in the interior of the tonsil single larger cavities, each one of which includes several follicular folds, and procures their common discharge at the periphery. By this arrangement, the actual superficial extent of the tonsil is greatly increased. To this fact the speaker directed particular attention.

In common with the rest of the buccal cavity, the surface of the human tonsil is invested with a thick covering of pavement epithelium, which rests upon a delicate endothelioid basement membrane. Following this is a tolerably compact mucosa, formed of interlacing bands of connective tissue, and containing many connective-tissue corpuscles. Occasionally, the adenoid tissue extends so near to the surface of the organ that it penetrates the mucosa, and, here and there, actually encroaches upon the epithelial layers. In the walls of the crypts this encroachment is especially marked, the more so as the bottom of the crypt is approached. In other words, the epithelial and subepithelial layers, thick at the periphery, become rapidly more delicate the deeper we trace them down the crypt wall, until, toward the lowest depth of the lacuna, they generally disappear. This disappearance is probably due to the attenuation of the mucous membrane in this locality, and its consequent liability to rapid post-mortem decomposition, and to mechanical injury in the preparation of the section.

This *unusual destructibility* is *another* point worthy of attention, for it, together with the point before mentioned, namely, the increase in the superficial extent of the tonsil caused by the crypts, constitutes a factor of the greatest importance in the pathology and the treatment of diseased conditions of the gland.

First, in its pathology, it is evident that any morbid condition which may affect the surface of the tonsil may also, as a rule, extend into the crypts, and thus add greatly to the amount of irritation apparently present in a given case. Moreover, the delicate nature of the lining of the crypt wall would facilitate the absorption of matters retained in the crypt, and this, together with the intimate connection of the tonsil with the lymphatic system would manifestly expose the patient to the danger of general infection in certain conditions of local poison, as, for instance, in diphtheria, in the sloughing ulcers sometimes seen upon the tonsils of hospital attendants, and in erysipelas.

The effect of irritation of the crypt upon the whole tonsil is a matter of common observation in cases where the crypt has been distended by cheesy accumulations, by tonsillar calculi, or by retained pus.

The writer had recently seen a case in which the latter condition was unquestionably accountable for a well-marked swelling and tenderness of the cervical lymphatics, and a similar case had been reported to him by Dr. Albert H. Buck.

As to the matter of treatment, however, these very anatomical conditions before mentioned offer possibilities for the relief of disease which have but rarely been appreciated or utilized. Instead of merely painting over the well-protected surface of the tonsil, let the medicament be applied thoroughly to the delicate wall of the interior of the crypt. Not only will a far greater extent of surface be reached, but also the effect upon the gland will be much more profound from the great ease with which the application will be absorbed.

The objection may be urged that to make such an application to the tonsil of a child, or even to an adult tonsil of normal size, would be impracticable. It should be remembered, however, that morbid conditions of the tonsil are almost invariably accompanied by hypertrophy, and that the larger the tonsil the larger will be the crypt, and this, together with the insensitiveness of the organ which exists in many instances,

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will render the operation easier than might be supposed. By this plan three general varieties of treatment may be employed, the disinfectant, the astringent, and the cauterant. The crypt should first be cleansed by means of a bit of absorbent cotton upon a fine probe, or by a stream of water from a curved syringe, and the application then made. Dr. Lincoln had for a long while advocated the use in this manner of a strong solution of iodine and chloride of zinc, and he and others have also used nitrate of silver, fused upon the end of a probe. For this purpose the writer has found it exceedingly convenient to apply the fused nitrate to the end of a small splinter of wood. This can readily be grasped in any good forceps, and when once used it can be thrown away. The measures suggested can nowhere be so well utilized, probably, as in those troublesome cases of hypertrophy of the tonsil in which excision is for any reason impracticable. No stronger argument could be brought forward, however, in favor of excision of a hypertrophied tonsil than the anatomical points referred to in this article. The conditions in which the general measures referred to will be applicable will readily suggest themselves.

OFFICERS FOR 1883–84.

The nominations for officers of the Association for the coming year, as presented by the Nominating Committee, were read.

On motion, the Secretary was authorized to cast the ballot for the Association, and the President declared that the following were unanimously elected

President.—F. H. BOSWORTH, M.D., of New York.

Vice-Presidents.—S. W. LANGMAID, M.D., of Boston; S. JOHNSON, M.D., of Baltimore.

Secretary and Treasurer.—D. BRYSON DELAVAN, M.D , of New York.

Council.—ANDREW H. SMITH, M.D., of New York; HARRISON ALLEN, M.D., of Philadelphia; MORRIS J. ASCH, M.D., of New York; BEVERLEY ROBINSON, M.D., of New York.

TIME AND PLACE OF MEETING.

On motion, the recommendation of the Committee was adopted that the next congress of the Association shall be held in New York City, on the third Monday in May, 1884.

Upon adjournment, the PRESIDENT invited the attention of the Fellows to an exhibition of instruments.

(The Proceedings of the *concluding* afternoon session will appear in our next issue.)

NEWS ITEMS.

THE MARINE-HOSPITAL SERVICE AND THE EPIDEMIC FUND.—The Secretary of the Treasury has authorized the Surgeon-General of the Marine-Hospital Service to make requisition from time to time for such sums as may be necessary to carry into effect the purpose of the last appropriation for the prevention of the spread of epidemic diseases.

STATE MEDICAL SOCIETY OF ARKANSAS.—The Eighth Annual Session will be held in Little Rock, on Wednesday, May 30th, at 10 A.M.

OHIO STATE MEDICAL SOCIETY.—The Thirty-eighth Annual Meeting of the Ohio State Medical Society will be held at Cleveland on June 5th, the same day on which the American Medical Association meets. The Society will be called to order in the "Tabernacle" on Ontario St., at 9 o'clock.

The Committee of Arrangements of the American Medical Association having formally extended to the Ohio State Medical Society, through its Committee of Arrangements, an invitation to arrange for a single session, at which only necessary business shall be transacted and then to adjourn and to have the members become members by invitation of the American Medical Association, the Committee of Arrangements of the State Society will, in their report, recommend an acceptance of the invitation.

NEW JERSEY STATE MEDICAL SOCIETY.—The One Hundred and Seventeenth Annual Meeting of the Medical Society of New Jersey will be held in Atlantic City on the second Tuesday in June, 1883, at four o'clock P.M.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending May 12, indicate that diphtheria, neuralgia, influenza, remittent fever, and intermittent fever have increased, and that diarrhœa, and rheumatism have decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during week ending May 12, and since, at eleven places; scarlet fever, at sixteen places; and measles, at thirty-one places.

OBITUARY RECORD.—Died in New Orleans, on May 21st, JOHN DICKSON BRUNS, M.D., in the 47th year of his age.

Dr. Bruns was a native of Charleston, S. C., and received his medical education at the South Carolina Medical College, from which he was graduated in 1857. He entered the service of the Confederate States as surgeon, and remained until the close of the war, when he went to Europe, in order to prosecute his medical studies. In 1866 he was called to the chair of physiology in the New Orleans Medical School. He was the editor and proprietor of the *Charleston Medical Journal and Review* from January, 1858, to January, 1861, and during that time was Professor of Physiology in the Charleston Preparatory Medical School. He was adjunct professor of practice in the South Carolina Medical School in 1866; professor of physiology and pathology in the New Orleans School of Medicine from 1866 to 1870, and in 1874 was made professor of the theory and practice of medicine in the Charity Hospital Medical College, New Orleans.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MAY 14 TO MAY 21, 1883.

BURTON, HENRY G., *Captain and Assistant Surgeon.*—Now awaiting orders at St. Paul, Minn., assigned to temporary duty at Fort A. Lincoln, D. T.—*Par. 1, S. O. 83, A. G. O., May* 15, 1883.

MACAULEY, CARTER N. B., *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Fort Bennett, D. T.—*Par. 2, S. O. 83, Department of Dakota, May* 15, 1883.

PORTER, J. Y., *Captain and Assistant Surgeon.*—Assigned to duty at Fort Davis, Texas.—*S. O. 49, Department of Texas, May* 14, 1883.

WILSON, GEORGE F., *First Lieutenant and Assistant Surgeon.*—Upon being relieved as Post Surgeon at Fort Townsend, W. T., assigned to duty at headquarters, Department of the Columbia.—*Par. 2, S. O. 64, Department of the Columbia, May* 10, 1883.

WILSON, GEORGE F., *First Lieutenant and Assistant Surgeon.*—To report to First Lieutenant Frederick Schwatka, Third Cavalry, for duty in connection with explorations in the Department of the Columbia.—*Par. 3, S. O. 64, Department of the Columbia, May* 10, 1883.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, JUNE 2, 1883. NO. 22

ORIGINAL LECTURES.

ON SUBINVOLUTION OF THE UTERUS.

A Clinical Lecture, delivered at the Cooper Medical College, San Francisco.

BY CLINTON CUSHING, M.D.,
PROFESSOR OF GYNECOLOGY.

GENTLEMEN: The patient before us this morning is of interest to you, not so much because she is suffering from any unusual or novel affection, but on the contrary, for her troubles are among the most common that you will meet in the treatment of the diseases peculiar to women, and it is because they are so common, and that we have several distinct affections combined in this case that she has been brought in here for our consideration.

I will now ask her a few questions, in order that you shall get her history fairly before you.

"How old are you, madam?"

"Thirty-five, sir."

"How many children have you had?"

"Seven."

"Have you had any miscarriages?"

"No, sir."

"Is your monthly sickness regular?"

"No, sir; it comes on sometimes once in six weeks, and sometimes once in three months, and I lose but little blood."

"Do you have any leucorrhœa or pain?"

"Yes; I have a hot feeling, and pain in the top of my head most of the time, and a good deal of pain under my left breast, and constant backache between my hips, and I have the whites all the time, and I cannot walk or stand upon my feet long without pain."

"How long have you been suffering from your present troubles?"

"Since the birth of my sixth child, six years ago."

The further history of the case shows that she is suffering from obstinate constipation, that her digestion is impaired, and that she sleeps badly at night. So far as can be learned, she has not had pelvic peritonitis or cellulitis. Upon examining her, we find that the uterus is enlarged, the cavity measuring three and one-half inches in depth; the uterus is retroverted, the fundus lying upon the rectum, and the cervix pointing towards the ostium vagina.

There is a bilateral laceration of the cervix, the posterior lip is rolled out, much thickened, and enlarged, covered by profuse granulations, and studded over with small cysts, the whole bathed in a profuse muco-purulent discharge.

In addition, we find that when she is in the semi-prone position, and with two fingers in the vagina, we try to push the fundus up from its unnatural place, that the body of the uterus and the utero-sacral ligaments are quite tender to the touch, preventing the reposition of the displaced organ without causing marked distress.

You will please notice that she is pale and anæmic, and has the expression of one who has undergone much suffering, both bodily and mental; for, in cases of this kind, it is not alone mere physical pain that we have to deal with, but a condition of the mind and nervous system that has become morbid, and that frequently gives us more trouble to relieve than the purely local affection.

The diagnosis here then is, first, subinvolution of the uterus following confinement, with retroversion, bilateral laceration of the cervix with eversion of the posterior lip, with cystic disease of its mucous membrane, and the whole everted portion covered with granulations that bleed easily when touched with the sound, and secrete a glairy fluid that soon becomes yellow.

Now what is the pathology here, and what are the causes that have led to this unfortunate condition?

The beginning of her troubles dates, as she tells us, from the birth of her sixth child, since which time she has steadily grown worse.

From the history of the case, and from what we now find, there doubtless followed her confinement a failure of that complete metamorphosis of the tissues of the puerperal uterus which we know as involution. In other words, this great mass of uterine tissue which should have undergone fatty degeneration and become absorbed and carried away by the bloodvessels and lymphatics, has only partially undergone this change; this wonderful transformation has been in some way checked before its full completion, and the uterus is left much larger and heavier than it should be, and has now passed into a chronic state of subinvolution. The causes that lead to this state are both general and local.

Among the general causes, and it is probably the principal cause in this case, is the rapid bearing of children by a woman who does not possess a great amount of physical strength, and whose health has been somewhat broken down thereby. The recuperative powers are not equal to the task, and all the processes of the body move slowly. It only needs some untoward circumstance to make involution following confinement or abortion impossible.

Indeed, debility from any cause would tend to favor subinvolution.

As to the local exciting causes of subinvolution I would say that anything that tends to keep up a congestion or irritation of the pelvic organs would act as such a cause. In this case we have a dislocation of the uterus backward, this condition interfering more or less with the circulation of the organ itself, as well as with the circulation of the adjacent tissues. Next we have obstinate constipation, which is frequently a marked exciting cause. As you know, the veins about the uterus are not supplied with valves, and you can easily understand how a descending colon and rectum, distended and overloaded with fecal matter, and pressing on the surrounding structures, would tend to keep up a passive congestion of the veins of the pelvis.

Doubtless, too, in chronic constipation the circulation through the liver is usually torpid, and the movement of the blood in the portal vein being retarded, the return circulation from the lower portion of the body is interfered with, and we thus have another cause added to the ones already mentioned, which tend to keep up the congestion of the pelvic tissues.

In the lacerated cervix we have a condition that, by reason of its continued irritation, causes a determination of blood to the part, and results, in a considerable proportion of cases, in causing enlargement and hyperæsthesia of the cervix, and may properly be classed under the head of local exciting causes of subinvolution.

One of the most common causes of the failure of

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the uterus to return to its normal size after delivery, is that women get upon their feet too soon after confinement. If a woman is strong and vigorous, and there have been no accidents or complications attending or following her delivery, she may be able get upon her feet within a few days after the birth of her child, with no apparent bad result. But if she be delicate, as too many of our native-born Americans are, with their overwrought nervous systems, impaired digestions, and feeble muscles, the erect position, if assumed by the patient too soon after delivery, while the uterus is still large and heavy, and the vagina, the uterine ligaments, and all the pelvic tissues are relaxed, there is danger of displacement of the uterus, local congestions and inflammations due to exposure to cold, and, as a consequence, an interference with the return of the uterus to its original size.

If it is possible to do so, I know of no better investment of time and money than for a woman who is raising a family, to devote at least a month following her delivery to rest and quiet, and as free from excitement of any kind as may be. Unless she is confined to her bed by poor health, it is the only opportunity the mother of a family has to remain quiet long enough to get really rested, and I would advise you to inculcate, in the most thorough manner, the minds of your puerperal patients with the idea that a full month must be given up to rest and recuperation after delivery, and that a portion of each day after getting out of bed must be spent upon a lounge or couch for several weeks. Of so much consequence do I consider this advice, that I would again urge you to use all your eloquence to show your patients the advantages to be derived from a month's bodily and mental rest following confinement. How long the uterus has been retroverted, and what the cause, we are unable to determine.

It may have antedated the subinvolution, or even her first pregnancy, for the displacement does not necessarily cause sterility; but in this case, from the fact that she was well up to six years ago, it is probable that the displacement followed her confinement at that time, either as a consequence of getting up too soon, or of subinvolution, or of both.

The laceration of the cervix probably occurred at the same delivery, and was apparently caused by the rapid expulsion of the child through the cervix, and it remains unhealed to this day, owing to bad management during the first two weeks following confinement; viz., getting up too soon, and not keeping the parts clean by vaginal injections.

The probabilities are, that more or less laceration occurs in the larger proportion of all cases when the head or shoulders pass through the dilated cervix; and they are more likely to be extensive when cervical disease has previously existed, such as cystic disease of the mucous membrane, or cervical catarrh. These injuries however, unless very extensive, usually heal within the first ten days after delivery, and you can easily understand that such healing process is promoted by rest in bed, and the use of vaginal injections daily of warm water, to which have been added a few drops of carbolic acid.

When, owing to the extent of the injury, or the presence of untoward circumstances, the fissure does not heal, nor have—as in the case of the patient before you—a thickening of all the tissues of the cervix, an eversion of the mucous membrane that lines the cervical canal, and an erosion of more or less of the mucous membrane that covers the vaginal portion of the cervix; this erosion being produced by the profuse and irritating discharge from the everted cervical mucous membrane that is chafed and fretted against the walls of the vagina with each movement of the body.

The openings of some of the mucous follicles become closed by inflammation, and we have studded over the everted mucous membrane, small cysts the size of a split pea, containing a glairy fluid, which consists of the retained mucus. To the examining finger, they feel like shot beneath the mucous membrane, and are simply retention-cysts.

The prognosis here for the cure of the cystic disease, and of the laceration of the cervix is good; but the cure of the displacement of the uterus, and the enlargement of the body, is somewhat uncertain, and will depend principally upon our ability to return the uterus to its normal position, and to retain it there by some method that will not cause pain or irritation.

We will begin the treatment of this case by prescribing for her fl. ext. cascara sagrada, ℥j, fl. ext. nux vomica, and fl. ext. hyoscyamus, āā ℥j, of which mixture she will take a small teaspoonful every night at bedtime, until her bowels are regular.

We will order her to take fifteen drops of the fl. ext. ergot three times a day between her meals, for its effect upon the tissues of the uterus, and upon the bloodvessels of the pelvis. After the introduction of a Sims' speculum, the anterior lips of the cervix will be seized by a delicate vulsellum and steadied, and the cysts in the cervix freely punctured with a bistoury, and after the bleeding has stopped, we will paint the erosion and the site of the cysts with the comp. tinct. iodine.

The Simpson uterine sound will then be introduced into the uterus with the concavity backward, and slowly and gently rotated so as to bring its concavity forward, and thus place the uterus in a condition of anterversion. The post-cervical cul-de-sac will then be filled with pledgets of absorbent cotton like the one I show you, each with a strong thread attached for removal; and afterwards several larger pieces of cotton placed in the upper part of the vagina, in front of, and below the cervix. The object of the cotton tampon applied in this way, is to furnish a soft padding that will, in a measure, keep the tender uterus in its normal position for a time, enable the patient to stand upon her feet with more comfort, and to learn how the uterus will bear the pressure of an artificial support. This dressing will be removed in thirty-six hours; a large vaginal injection of hot water used night and morning, until she returns here in three days to have the uterus replaced and the dressing repeated.

As soon as the tenderness subsides, and the uterus is somewhat reduced in size under the influence of the hot water and the ergot, we will introduce a retroversion vaginal pessary to keep the uterus permanently in place. The laceration of the cervix will then be repaired, which will still further assist in reducing the size of the uterus; and if we can then induce her to go into the country for a few weeks or months, away from the cares and responsibilities of her family, we may expect permanent good results from our treatment.

ORIGINAL ARTICLES.

ON SOME COMPOUND ARTICULAR FRACTURES.

BY LEWIS A. STIMSON, M.D.,

PROFESSOR OF PHYSIOLOGY AND CLINICAL SURGERY IN THE UNIVERSITY OF THE CITY OF NEW YORK; ATTENDING SURGEON TO THE BELLEVUE AND PRESBYTERIAN HOSPITALS, NEW YORK.

(*Read before the New York Surgical Society, May 8, 1883.*)

THE surgery of the joints has already received, in the discussions of this Society, an attention to which the importance and variety of the lesions with which it deals, the permanent disabilities which these lesions so frequently cause, and the difficulties and embarrassments encountered in their

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treatment fully entitle it. Among the more important traumatic lesions, compound fractures hold a prominent place. Equally with other injuries, they have shared in the benefits conferred by the recent great improvements in the treatment of wounds, and, so far as the severer forms are concerned, the rules of treatment have been drawn with sufficient distinctness. You will all, doubtless, remember cases that have been presented here in which formal primary excision of a joint that has been extensively mutilated in all its parts has not only saved the limb, but has also given the patient a new and useful joint. My wish is to ask your attention this evening, not to these extensive injuries, in which the question lies between excision and amputation, but to those lesser ones in which, the injury to the bone and soft parts being comparatively slight, the main feature is the implication of the joint, and the therapeutic problem is how best to avoid dangerous suppuration within it—cases in which the surgeon asks himself whether he is justified in striving for preservation of form and function, in seeking to convert the fracture into a simple one, in depending upon drainage and antiseptics to prevent suppuration, or whether he should not rather seek in partial or complete excision an inferior result, but one obtained with less risk to the patient.

The cases which I have now to relate are those of this class which have come under my care during the past year: they are three in number—one each of the elbow, knee, and ankle.

CASE I.—W. J. K., twenty-eight years old, fell to the ground, April 4, 1882, from the seat of a truck which he was driving, struck upon the palm of his right hand, and injured his elbow. He went at once to a small hospital, where, he says, the limb was handled for some time, causing him much pain, and he was then advised by the examiners to seek relief elsewhere. He came to the Presbyterian Hospital, where I saw him five hours after the accident, and recognized a dislocation backward at the elbow of both bones of the forearm. Ether was administered at his request, and the dislocation reduced easily. The skin was unbroken.

On further exploration, I found a movable, hard body, about half an inch long, lying under the skin on the outer side of the joint between the head of the radius and the olecranon, which, as the outlines of the olecranon, external condyle, and the accessible portion of the head of the radius were normal, I judged to be the inner portion of the head of the radius broken off when the bone was forced backward past the condyle. Believing that if left in place, or even if restored to its proper place, if that were possible, it would interfere very seriously with the subsequent mobility of the joint, I removed it at once by cutting straight down upon it. The joint was then washed out with a watery solution of carbolic acid, 1 in 40, a short drainage-tube inserted, the wound closed about it with two sutures, and a gauze dressing applied.

The fragment, which I now show, is a portion of the head of the radius, triangular in shape, comprising about one-third of the articular surface; it is 17 mm. long, 12 mm. wide, and 8 mm. thick, the latter measurement being in the direction of the longitudinal axis of the bone.

The patient's temperature, which reached 102° the first evening, sank steadily to 98½° on the morning of the eighth day. The dressing was not changed until the third day, when the tube was removed, and again on the eighth day, when the wound was found almost dry, and when I moved the joint through an arc of about 70°, rotated the wrist without causing pain, and reapplied the dressing. The patient left his bed shortly afterward, without permission, and walked about for two hours; in the evening, the joint became painful; the temperature rose to 100¾°, and the next morning to 103°, when I removed the dressing, and found no discharge; but the outer side of the joint was tender on pressure, red, and swollen. Reapplied dressing; posterior splint; ice-bag. Two days later (eleventh day), the wound discharged about two drachms of pus on pressure, and during the following week discharged freely on pressure over the outer side of the elbow. On the nineteenth day, I made a counter-opening on the outer side of the arm, about three inches above the wound, and, on the twenty-fourth day, opened a large subcutaneous abscess, on the inner side of the elbow, which communicated with the other, apparently by a track passing around posteriorly above the elbow. The flow of pus then diminished rapidly, and the openings closed within a month.

As the joint was only slightly movable, I forced it, under ether, on June 8, getting motion through a range of about 60°. When I last saw the patient, a week or two later, the greater part of this gain had been lost; the joint was free from pain, and the patient resumed work as a driver, promising to report from time to time. I have heard nothing from him since.

[*May 23.*—I met this man to-day. Flexion and extension at the elbow are almost complete; but rotation of the forearm is entirely lost. The arm is strong and serviceable.]

CASE II.—Edward C., twenty-two years old, was admitted to the Presbyterian Hospital, February 4, 1883, with a compound fracture of the left patella, caused the same day by a fall from a pillar of the elevated railway, which he was attempting to climb while intoxicated. The bone was broken transversely a little below its centre, without comminution and the fracture communicated largely with a clean-cut, transverse wound one and one-quarter inch long, lying directly in front of it; the edges of the wound and the surrounding parts showed no signs of having been bruised. The trousers showed a corresponding transverse cut at the knee. There was also a fracture of the left inferior maxilla, and a long vertical wound of the left cheek. The knee was dressed with carbolized gauze, and the limb placed on a single inclined plane.

The next day, when I first saw the case, I found the wound and the interval between the fragments occupied by a clot; removed it, enlarged the wound for half an inch on the inner side, washed out the joint thoroughly with a 1–20 carbolic solu-

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tion, passed a drainage-tube into the joint on each side through an opening made at about the centre of the lateral aspect, brought the fragments together with a silver-wire suture, the loop of which included all the soft parts except the skin in front, but not the articular cartilage, brought the ends out through the incision, closed the wound with sutures, and applied a gauze dressing covered with cotton, bound on firmly. Posterior straight splint.

The dressing was changed the next day, because of pain, and not again until three days later, when pus was found to have formed under the skin on the outer side, rendering necessary a counter-opening three inches above the one made for the drainage-tube on that side. The patient's general condition was satisfactory; temperature 99¼°.

Three days later (February 12th) the drainage-tube was removed, and a fresh one inserted on the inner side under the skin alone, to drain a small cavity which had formed around and above the first tube. During the following week the dressing was changed every second or third day, and the patient seemed to be doing well, but his temperature rose every afternoon to 101°, and on the 21st of February he complained of pain on pressure in the lower third of the thigh, which was swollen and rather tense. There was apparently no liquid in the joint, and the openings yielded only a small amount of thick, creamy pus on pressure.

February 24.—I opened a large collection of pus which lay on the outer side of the lower portion of the thigh under the vastus externus, and which communicated imperfectly with the opening made for the drainage-tube on that side, and also with the outer angle of the wound. The incision made on this occasion was about six inches above the condyle; drainage-tube. After this the temperature sank to the normal level, the thigh shrunk to nearly its natural size, and the amount of pus diminished steadily.

March 12.—It is noted that the case had progressed satisfactorily during the preceding fortnight. The abscess on the outer side of the thigh had shrunk to the track of the tube, the last portion of which was removed that day; the pouch on the inner side had a capacity of about one ounce; the transverse wound in front of the patella was flat and partly cicatrized. The wire uniting the fragments was cut and removed on that day. The patella was movable laterally, and the knee could be flexed slightly without pain.

30th.—The dressing, which had been in place eleven days, was changed. All the openings, except the first two made for the drainage-tube, were closed, and the anterior wound had nearly cicatrized. The fragments of the patella were united, apparently, by a fibrous band about one-quarter of an inch long, and were movable upon each other.

The patient was discharged from the hospital April 2d, with instructions to wear a posterior splint, and report in a fortnight.

April 14.—Everything was found healed except the tube-opening on the outer side. Patient walks without crutch, and can flex the knee 10° without pain. Independent mobility of the fragments cannot be recognized.

On the 30th of April I removed a small fragment of the patella that was found under the skin, just above the opening of the drainage-tube on the outer side, and which had kept up suppuration at that point. The patella is freely movable laterally, and the mobility of the joint is increasing. [The patient was shown to the Society May 8.]

CASE III.—Thomas S., forty-seven years old, was admitted to the Presbyterian Hospital, February 17, 1883, with a compound fracture at the left ankle, caused by a fall while walking in the street half an hour before admission. Intoxicated.

The left fibula was broken at a point about three inches above the tip of its malleolus; the internal malleolus was broken off at its base, and this fracture communicated with a transverse wound of the skin, directly over it, through which blood was flowing quite freely. A small piece of bone which lay in the wound was removed. The surface of the limb was washed with the carbolic solution, but the wound was not injected. A gauze dressing was applied, with side splints outside.

The next day, the dressing, which was saturated with blood, was changed. The patient was very tremulous, with slight hallucinations. On the third day, the dressings were again changed; the position of the foot corrected; a posterior and an external lateral splint of plaster of Paris applied next the skin, and a new dressing placed over all. This dressing remained in place until February 26, the tenth day, when the discharge came through. During the first seven days, the temperature did not rise above 99°; on the eighth day, it rose to 99½°, and on the tenth, to 100°. The alcoholic symptoms had disappeared by the end of the first week.

March 5.—The wound was found to be reduced to a small, flat sore, and a small cotton dressing was substituted for the gauze.

18th.—The wound was found entirely healed; a continuous plaster splint was applied from the toes to the knee, and the patient was discharged, March 24, at his own request.

May 7.—I learned that the joint was freely movable and painless; the patient had returned to work, and was troubled only by the swelling of the limb during the day.

While in the last case the course was entirely free from complications, and the result as satisfactory as after any simple fracture, and although in the other two the patients' lives were never in danger, and there was never even any anxiety concerning them, except such as is inseparable from a knowledge of the possibilities in such cases, yet in each recovery was delayed, the result marred, and the chance of the occurrence of dangerous complications notably increased by profuse and prolonged suppuration, and in each the course differed widely from the uneventful, uninterrupted, rapid progress to recovery seen in the third case, which is the ideal of treatment, and which many believe a rigorous use of the complete antiseptic method will ensure.

It would be manifestly improper to assume that

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this difference in result was due solely to differences in the treatment of these cases; such a generalization from so limited a number of cases would be unwarranted; but a discussion of these differences may not be without value, and may bring out such details of experience and expressions of opinion by you as will enable us to formulate more closely rules of treatment to be applied in similar cases. The details of treatment and the differences were as follows:

In no case was the spray used; neither in the first nor in any subsequent dressing. At the first dressing, the wound was injected with the carbolic solution in the first two cases; in the third case, only the surface of the limb and wound were washed with the same solution. At no subsequent dressing was the wound, in either case, injected; at the most, a sponge saturated with the solution was squeezed over it. The dressing was the common carbolized gauze, applied dry in a single broad sheet of several thicknesses, or in several narrow strips, overlaping and crossing each other somewhat like those of a Scultetus bandage, for the sake of an easier and more accurate fit, bound on snugly with a roller bandage, and sometimes overlaid with a thick layer of cotton to equalize the pressure. The dressing was changed whenever the discharge came through, or whenever pain or a rise of temperature made inspection of the wound desirable. The drainage-tube in the first case was short, reaching probably down to the wound in the capsule, but not into the joint; it was removed on the third day. In the second case, fracture of patella, a drainage-tube was passed into the joint on each side, and left in place for a week. In the third, no tube was used.

In the second and third cases the joint was kept completely immobilized upon a splint for several weeks; in the first case it was immobilized for one week, and then, after the occurrence of suppuration, again until the cure was nearly complete.

There was no evidence of the putrefaction of the discharge in either case; and in the two that suppurated the drainage was efficient, and the pus came, not from the joint, but from cavities that formed in the cellular tissue beneath the skin and, in one, beneath the vastus externus. Why did these collections form? Why did suppuration occur at points so distant from the openings in the skin?

In the first case there appears to be a very definite, immediate, determining cause: the passive motion communicated on the eighth day, together with the use of the arm immediately afterward in dressing and moving about. Up to this time the patient had been doing very well; the swelling had subsided, and the wound was little more than a superficial sore. The swelling that followed the receipt of the injury was not greater than that commonly observed immediately after a dislocation of the elbow, and the passive motion was even much less than that which is frequently communicated in the treatment of the same injury. There must, therefore, have been a secondary, contributing cause; and that second cause I am disposed to find in the adjoining, partly healed track of the drainage-tube; the two acting upon the loose cellular tissue, modified in its nutrition and irritated by the previous swelling.

In the patella case, similar conditions existed; pus formed outside the joint and escaped alongside the drainage-tubes. The later abscess, which formed under the vastus externus, and required a separate opening, was a simple abscess by proximity or by direct continuation, such as is frequently seen.

The almost uninterrupted series of successes recently obtained in various arthrotomies done for the relief of deformity, especially in genu valgum, which are among the most brilliant triumphs of antiseptic surgery, shows that a compound articular fracture, produced by the surgeon with the minimum of violence and of injury to the surrounding soft parts, can be safely received and promptly repaired. In such cases, as also in those which have been here narrated, the joint is opened and a drainage-tube is commonly used. The differences, therefore, to which I think we must look for an explanation of the difference in the result, lie in the greater injury done in the latter to the soft parts, to the swelling, and to the occasional delay in beginning treatment—a delay for which thorough disinfection does not entirely compensate.

Again, if we compare the course of simple dislocation of the elbow with that of the first case, the principal difference is found in the addition in the latter of an incision, the presence of a drainage-tube for forty-eight hours, and the persistence for a few days of the unhealed track of that tube; and this difference was sufficient, with the aid of the slight irritation of motion, to provoke suppuration in the swollen tissues. The inference to be drawn is, I think, that the unbroken skin furnishes a protection for injured or irritated tissues for which antiseptic dressings and treatment are an uncertain substitute, and that we should be cautious in inferring that we can safely deal with such tissues in accordance with experience obtained in operations upon those that are uninjured and unirritated. There is reason to think that if this elbow had been kept at rest for a few days longer suppuration would not have taken place; but still, would it not have been better to postpone the operation itself, to have removed the displaced fragments of the head of the radius only after the subsidence of the irritation caused by the dislocation?

Of these three cases, the one that did best was the one that was least interfered with (it was also the one in which the injury was least, but the difference in this respect was not great enough, I think, to account for the difference in the results), and I find in this fact, and in the fundamental success obtained in all, ground for the belief that confidence in modern methods of treating wounds should incline the surgeon rather toward absolute conservatism than towards operative interference; that in cleanliness, drainage, and rest we have agents efficient in themselves to avert inflammation of the joint, or, failing that, to keep the inflammation within such limits that the risks of an operation, if it should become necessary, are not materially increased; that the safeguards now possessed against

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the occurrence of formidable complications of wounds should give confidence to expect the comfortable healing of wounds accidentally inflicted, rather than stimulate to the voluntary creation of new ones; and that the broad rule of treatment in cases such as those under consideration should be to avoid excision, except when it is clearly indicated by the extent of the injury, the difficulty of establishing drainage, or by an economical reason arising from the function of the joint involved, and the social condition of the patient that may make mobility, even if combined with some insecurity, preferable to anchylosis.

CASE OF IMPETIGO HERPETIFORMIS: RECOVERY.

BY LOUIS A. DUHRING, M.D.,

PROFESSOR OF SKIN DISEASES IN THE UNIVERSITY OF PENNSYLVANIA.

IMPETIGO herpetiformis, first described and so named by Hebra, is a rare disease of the skin, about which but little has been written either abroad or in this country. As I have stated in the third edition of my treatise on skin diseases, it may manifest itself in a variety of forms, all having, however, certain features in common. Cases showing the several varieties of the disease have, from time to time, presented themselves to me, one of which I shall briefly describe with the following case:

Mrs. Noami P., aged 24, applied for advice at the University Hospital, December 26, 1882, suffering with a mixed vesicular, bullous, and pustular disease of the skin, occupying the greater portion of the general surface. The following history was obtained: She had enjoyed good health until seven months ago, when the disease of the skin made its appearance. At the time, she was six months pregnant, and in average health. The eruption began upon the abdomen, but within a week, the whole surface, including the hands and feet and fingers and toes, was invaded. The first lesions were wheals, which in a few days passed into vesicles and small blebs, accompanied with violent itching. The urticarial lesions soon ceased, vesicles, blebs, and pustules now appearing from day to day. The blebs possessed the peculiarity of refilling upon being opened. Many of the lesions came out as "water-blisters," and later became whitish pustules. This change was often noticeable when they refilled a second or a third time after being evacuated. The disease increased steadily in severity up to within a week of confinement. At times the whole surface, including even the mucous membrane of the mouth and vagina, was literally covered with lesions. They made their appearance in the form of crops every few weeks, at one time vesicles and blebs predominating, at another time vesicles and pustules or a mixture of all three lesions. They varied in size from a pin-head to a pea, or even a walnut, and were of different shapes, being mostly very irregular in outline. Some were flat, others were raised, the vesicles being generally flat.

Each attack lasted about a fortnight. The distress from the itching was almost unendurable. None of the many applications used afforded any relief, and anodynes were resorted to nightly. Early in the course of the disease, the nails of the fingers and toes became affected, and the hair fell out to a considerable extent. The child was born healthy at full term, four months ago. After delivery, the eruption began to decrease somewhat in severity, but it has nevertheless persisted, and now presents the same general characters as at first. In fact, at no time has the type of the eruption materially changed.

The following notes were recorded at the time of the examination: The patient is a blonde. She is tall and spare, and is evidently in poor general health; the expression is anxious, and she is both nervous and despondent, fearing that she will never recover. She has lost weight of late. The whole surface, especially the trunk and upper extremities, is the seat of a profuse multiform eruption, characterized by vesicles, vesico-pustules, pustules, and blebs, of the most varied sizes and shapes. Many of the vesicles are extremely small—pin-point, and pin-head sized. All are tense, and have a glistening, glazed look. The small lesions are, as a rule, flat and but little raised. The pustules are more variable in size, some being as large as peas, or even cherries; the blebs are in some instances as large as cherries, or even walnuts. None of the lesions show any disposition to rupture, and are in this respect distinctly herpetic. As a rule, they are not accompanied by redness of the skin, nor by marked areolæ; often they rise from apparently sound skin. Many of the larger ones have an irregular, jagged, or stellate outline, which gives them a "puckered" appearance, similar to that we sometimes see in herpes zoster. This peculiarity is particularly noticeable with the pustules. Vesicles, pustules, and blebs exist in all stages of evolution; vesicles are observed passing into pustules and also into blebs. Here and there vesicles and pustules are developed side by side, and owing to the fact that the latter are whitish rather than yellowish, the contrast is marked.

Another peculiarity to be mentioned is the tendency all the lesions evince to group—to occur in more or less well-defined clusters. At the same time, it must be stated that this does not exist in so marked a manner as in herpes zoster. For example, here and there two or three pustules are grouped, but oftener a number of vesicles are irregularly clustered, forming a patch the size of a dime or a quarter dollar. The eruption in no instance follows the course of nerve-tracts. The extensor surfaces are more affected than the flexor. The finger-nails show two distinct transverse ridges, indicating attacks of cutaneous outbreak.

The patient was placed upon full doses of arsenical solution and wine of iron, and used locally an ointment of oleate of bismuth. The following week, new lesions still appearing, one-half of the general surface was anointed three times daily with precipitated sulphur, two drachms; olive oil, two drachms; lard, one ounce. Upon the other half of the body, the "liquor carbonis detergens" (an alcoholic solution of coal-tar), one part to four of water, was applied freely. Under these local reme-

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dies, improvement set in at once, both seeming to act beneficially. The tarry preparation was subsequently used (full strength) upon the whole surface. A tonic saline aperient was also prescribed for daily use in connection with the iron and arsenical mixture, and under these remedies, the patient made a very satisfactory recovery. Six weeks ago she regarded herself as cured, and a few weeks later passed from under observation.

MEDICAL PROGRESS.

DRAINAGE OF THE NON-PUERPERAL UTERUS.—E. SCHWARTZ, of Halle, recommends drainage of the uterus in morbid states not directly due to the influence of parturition. Though the cavity of the non-puerperal uterus is smaller than the bladder and other cavities, which in their morbid states are constantly treated by drainage, yet the swelling of the mucous membrane, and the uterine flexions and deviations often obstruct the outward flow of secretions. Schwartz at first used rubber drainage-tubes, but found that these were liable either to be occluded or else to produce slight hemorrhage. He then employed the sounds of Schede and Rümmel, which consist of a kind of trellis-work of very fine filaments of glass. If too large, they produce uterine colic. At first, the sounds produced an increased secretion, but in a few weeks it ceased altogether, and the patients were cured. He had had no disagreeable complications. The sounds are about two and one-half inches long, flexible, with a kind of handle at the upper extremity, to which a silk thread is attached in order to keep them more easily in the uterus; to the lower end another thread is attached, in case the patient may wish to remove them. The sounds are introduced by means of an ordinary hysterotome, after having been previously dipped in iodoform. In cases of endometritis they should be kept in the uterus for some months, being changed every three or four weeks. In amenorrhœa a few days is a sufficient time to keep them in position. In cases of mechanical dysmenorrhœa, Schwartz has had good results after a month's treatment.—*Centralbl. für Gynäk.*, March 31, 1883.

CONDENSED MILK AS A FOOD.—The Commission of the French Society of Hygiene have published the following conclusions regarding condensed milk: 1. Condensed milk containing sugar, diluted with twice or four times its weight of water, may be considered as an article of food, and in some cases would prove useful. 2. Artificial milk thus prepared is incontestably inferior to good cow's milk. It is a healthy article of food, but only slightly nutritive. 3. The directions given in the prospectus are calculated to mislead the public. Condensed milk, diluted with from six to ten times its weight of water, cannot be classed as an article of food. 4. Newly born infants, which have been suckled for three or four months, may be weaned and fed with good cow's, goat's, or ass's milk, not mixed with water, and given in sufficient quantity. Condensed milk containing sugar, diluted with from two to three times its weight of water, may form part of the daily nourishment of such children; but it would be certainly imprudent to use it alone.—*British Medical Journal*, April 21, 1883.

TARSOTOMY FOR CLUB-FOOT.—M. BŒCKEL, in a communication to the Société de Chirurgie of Paris, proposed tarsotomy as a treatment for congenital club-foot—especially equino-varus. This method of treatment, by removing the astragalus, he considers superior to all others, and shows that under the influence of a deformed astragalus, the foot gradually takes a vicious form. In forty published cases of the operation there were no accidents or complications. An immovable dressing is applied. Bœckel found that, in one of his patients, the limb was not shortened after the removal of the astragalus. M. DESPRÉS thought that tenotomy should also be performed in connection with the tarsotomy, in order to get uniformly good results.—*Progrès Med.*, April 21, 1883.

MEDICATED GELATINE IN SKIN DISEASES.—DR. PICK regards medicated gelatine as a clean and convenient dressing in the local treatment of skin diseases, the use of plasters or bandages to retain the medication being entirely obviated. The patient applies the gelatine, previously melted in a water-bath, with a brush, and when dry, applies over it a thin coating of glycerine, which prevents the gelatine cracking or chipping off, and keeps it flexible. The gelatine is prepared as follows: Fifty parts of gelatine are dissolved in one hundred parts of distilled water, in a water-bath. The desired medicine is then added, the mixture being constantly stirred. Then set aside, and wrap in oiled paper when cool. The patient melts a portion of this cake in a saucer placed in hot water, and, when dissolved, applies it with a camel's-hair brush to the diseased surface. If a fresh application is desired, the patient takes a warm bath, which washes off the old dressing.—*Allgem. Wien. Med. Zeit.*, Feb. 13, 1883.

THE CAUSE OF ICTERUS NEONATORUM.—BIRCH-HIRSCHFELD, relying on the evidence shown by the examination of six hundred bodies of infants, attributes a hepatic origin to the icterus so often found at that age. The immediate cause seems to be an œdema about the branches of the portal vein in the capsule of Glisson, which compresses the excretory bile-ducts. This theory is supported by the fact noted by Hofmeister, that one generally finds bile acids in the serous fluid contained in the pericardium of new-born children dead of icterus. As to malignant icterus neonatorum, Birch-Hirschfeld thinks, contrary to the opinion of his predecessors, more particularly of Renege, that the infection is conveyed, not through the umbilical artery, but through the vein.—*Le Progrès Med.*, April 21, 1883.

ALCOHOLIC PURPURA.—VOGELIN says (*Th. de Paris*, 1882):

1. Alcoholism alone will suffice as an exciting cause of purpura in predisposed individuals.

2. Pathologically considered, this form of purpura is due to changes brought about by alcohol in the blood, in the walls of the capillaries, and in the vaso-motor system.

The precise manner, however, in which alcohol acts upon these elements has yet to be explained.

3. Alcoholic purpura runs a rapid course. While usually terminating favorably, it leaves a tendency to relapse.

4. Treatment should be directed, in general, to the functional troubles resulting from alcoholism, and specially to the conditions which underlie the petechial eruption. The measures adapted to ordinary purpura are also those best indicated in these cases.—*Journal of Cutaneous and Venereal Diseases*, June, 1883.

QUININE CARBIMIDE IN ERYSIPELAS.—TURBIN has treated five cases of erysipelas with the bimuriate of quinine carbimide. An aqueous solution of 60 to 65 per cent. was used, the amount being ℥x. One or two injections were sufficient. The erysipelatous parts were

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then dressed with camphorated carbolized oil. Turbin has had no unpleasant symptoms from this treatment, though 71 local abscesses have been reported as occurring in 281 patients in whom 773 injections were made. It seems that this double salt has no advantage over other preparations of quinine.—*Revue des Sciences Médicales*, April, 1883.

ANÆSTHETICS DURING LABOR.—DR. THOMAS D. SAVILL, at the close of a paper on this subject, thus summarizes the main precautions, the observance of which would render the use of chloroform justifiable:

1. There are certain women who have a tendency to flood at every confinement, and others in whom there seems an already too great relaxation of fibre—weak, anæmic females in their eighth or tenth confinement; and to these it would be unadvisable to give chloroform, except for necessity. Happily, it is not these women who suffer the most pain, but rather those strong, healthy primiparæ whose pelves and general build approximate to the masculine type.

2. We should not give it when labor is complicated with severe vomiting, or with acute disease of the heart or lung, unless there be imperative call for it.

3. It should not be given to the full extent, except for operation, convulsions, or spasm of the cervix; and then it is most necessary that one person should devote his entire attention to it.

4. The inhalation should be stopped directly we find the pulse becoming very weak, or the respiration irregular.

5. Anything which makes us suspect a fatty or enfeebled cardiac wall should make us cautious in the use of chloroform. Here, as in cases other than those of labor, it is not the most extensive valvular disease (so long as it be attended by compensating hypertrophy), but the atrophied or degenerate wall that constitutes the source of danger. Unfortunately, the signs of these conditions are subtle and uncertain; but a fatty heart may be suspected by an exceedingly feeble cardiac impulse, combined with an almost inaudible first sound; or attacks of dyspnœa, vertigo, and syncope, in the absence of anæmia, or valvular lesion; or the copious deposit of fat in other parts of the body, and the occurrence of dropsy without adequate cause. A dilated heart may be suspected by increased area of præcordial dulness, combined with epigastric and venous pulsation, and a want of correspondence between the violence of the cardiac impulse and the strength of the pulse. Pericardial adhesions also form a great source of danger. They may be suspected when the heart's apex is fixed above its normal position, and does not shift with respiration: or when there is depression instead of protrusion of intercostal spaces over the position of the apex, giving a wavy character to the cardiac impulse.

6. The sixth and last precaution I would mention is this. In all cases we should take extra care to prevent the occurrence of hemorrhage after birth: by giving a full dose of ergot in a little warm water when the head reaches the perineum; by ceasing the chloroform immediately it is born; and by rousing the patient from her lethargy as soon as possible.—*British Medical Journal*, May 12, 1883.

INHALATIONS OF EUCALYPTOL IN INFECTIOUS DISEASES.—DENIAU highly recommends this treatment of infectious, and also of some non-infectious diseases, as croup, bronchitis, etc. The use of the atomized vapor has given very satisfactory results. The results of this treatment in diphtheria especially were unusually good. The patients were kept in a moist atmosphere of the eucalyptus vapor. All the cases of diphtheria treated in this manner at New Plymouth, Australia, recovered without grave symptoms. The false membranes were easily coughed up, and in some cases casts of the bronchi. Eucalyptus is also recommended as a useful inhalant in bronchitis, croup, and asthma, and is a favorite Australian remedy for influenza. It seems, too, that it would give good results in typhoid fever.—*Bull. Gén. de Thérap.*, April 30, 1883.

ALOPECIA PRÆMATURA.—DR. LASSAR recommends the following treatment for premature baldness: Wash the scalp thoroughly for fifteen minutes every day with tar-soap, or soft glycerine soap, or soap which contains iodide of sodium. This must be followed by a warm douche, gradually cooled, and finally with water containing corrosive sublimate, two parts per thousand. The hair is then dried, and a spirituous solution of naphthaline (one-half per cent.) is rubbed into the hair. Carbolic or salicylic acid (one and one-half to two and one-half per cent.) may also be employed in the douche. This treatment must be persisted in even for eight weeks or more. It is much more efficacious in the early stages.—*Berliner klin. Wochensch.*, April 16, 1883.

RESORCIN IN PURULENT VAGINITIS.—CHÉRON has used resorcin successfully in cases of purulent vaginitis, both in the acute and chronic stages. When specular examination is painful, he introduces a rubber tube into the vagina and injects, three times a day, the following solution (irrigating the vagina with it for about six to ten minutes): Resorcin ℥ijss, Water Oij. By the use of this solution the purulence rapidly diminishes, as does the pain on examination, and then the following may be employed: Resorcin ℥jss to ℥iij, Glycerole of starch f℥ij. This is introduced into the vagina through the speculum, by means of a tampon, and left in place for twelve or fifteen hours. This is done every other day. A cure is obtained much more rapidly by this means than with emollients and glycerite of tannin.—*Le Progrès Med.*, May 12, 1883.

CHRONIC MILIARY SUDAMINA.—PINARD, in *Le Courrier Méd.*, September 23, 1882, concludes an article on this subject as follows:

1. There exists as a sequel of acute sudamina (whether sporadic or epidemic), a hitherto undescribed form of the disease, for which I suggest the name *chronic miliary sudamina*.

2. In the majority of cases it follows in the course of a protracted convalescence from the acute form of the malady. Sometimes, however, in a district infected by acute sudamina, it occurs spontaneously and primarily, or after a short subacute stage.

3. According to my observations, it affects grown-up persons exclusively, and females are rather more liable to its attack than males.

4. Its leading symptoms resemble those of cerebro-spinal irritation, as described by Jaccoud. They are habitual and profuse sweats; a discrete and scanty miliary eruption; marked muscular paresis; persistent weakness of the stomach, followed by subjective sensations of heat and cold; neuralgic or rheumatic seizures; severe epigastric pains, and palpitation of the heart.

5. The complaint seldom varies in its manifestations, and lasts from a few months to three or four years, with a tendency to spontaneous cure.

6. Sulphate of quinine will be required in a few cases of chronic miliary sudamina, but, as a general rule, cold water and the continuous galvanic current are the only reliable remedies.—*Journ. of Cutan. and Venereal Diseases*, June, 1883.

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SATURDAY, JUNE 2, 1883.

THE AMERICAN MEDICAL ASSOCIATION.

WE are not of those who decry the American Medical Association, either in its scientific, ethical, or social objects, and we hail the occasion of the annual meeting as one of great importance to the American medical profession. We presume no one will deny that the Association, since its organization, has been of service in diffusing a knowledge of rational medicine, elevating the tone of its members, and in promoting an acquaintance and friendship between men widely scattered, and unlikely to be brought together, except through its meetings. Whether all of these results have been accomplished in the highest degree desirable or possible is a question which we do not think it profitable at present to discuss.

More to the point is it to consider what the Association should seek to accomplish in the near future. In searching for an answer to such a question, there occur to us the following objects, the importance of which would appear to be somewhat in the order in which we shall place them.

First, the development and dissemination of accurate knowledge of rational and scientific medicine and such collateral sciences as lead to the former. To this end, it is important that the ablest men in the profession should be enlisted in the cause of the Association. This is not now fully the case, for although it has always had enrolled upon its list of members many of the strongest men, yet there are others who have been conspicuous by their absence. It is true that it is a pecuniary sacrifice to busy men to devote a week to attending the meeting of the Association, but, as a rule, it is they who can best afford the sacrifice, and we suggest that such a sacrifice, if it be not rewarded in the consciousness of pleasure to others less fortunate, may even be as bread cast upon the waters—to return after many days.

The Association, on the other hand, has also a part to play in attaining this most desirable object—the interest of the eminent men of the profession—and that is to ignore all partisan, geographical, or special reasons of any kind, in the appointments to positions involving the presumption of peculiar qualifications, but to select only those whose reputations acknowledgedly adapt them for the post to be filled, and especially not to appoint those who seek appointment for personal reasons. A by-law of the Association has frequently harassed the Committee on Nominations by preventing the election of desirable officers for the next year on account of their absence from the meeting of this year. The best interests of the Association would be promoted by the repeal of this law, as now proposed.

In the further development of the scientific aims of the Association, the method of work by sections is certainly that in which the best results have been accomplished by the British Medical Association, with the objects of which our own may be said to be identical. At the same time it must be admitted there is some reason for disappointment at the results of the work of the sections. We cannot but think that the formation of the various national societies devoted to the interests of the specialties, such as the American Surgical, Gynæcological, Ophthalmological, Laryngological, and others is almost wholly responsible for this. They have unquestionably taken away from the sections of the American Medical Association many men whose coöperation would have been most creditable. And believing as we do, that the same results could have been accomplished in the sections of the General Association, we confess that we regret the formation of these special societies—at least to the extent to which it has gone. There are no British Dermatological, Laryngological, or other special societies, and, therefore, the sections of that Association devoted to corresponding specialties have been brilliant successes. In taking this position, we do not, of course, wish to be considered as discouraging local societies devoted to the specialties. It would be a great waste of time for men interested in different specialties to sit in one general medical society, and listen to disquisitions upon subjects in which they have no interest, while it is certain, too, that the specialties would never have reached their present stage, but for such local organizations. But each section of the National Medical Association should be a national society devoted to the interest

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of one or more specialties, and thus would be accomplished the object of such a society. It is further, not unlikely that men who are members of these different national special societies are prevented from attending the National Medical Association by the fact that they cannot afford the time and expense demanded by attendance on both. And thus, in a second way, does the section suffer by reason of the existence of the national special society.

These societies, however, now exist, and it is not likely that any influence which can be brought to bear will soon effect their discontinuance. But we still believe that the sections can be redeemed from their unsatisfactory position. On another occasion we may discuss the methods by which this might be accomplished.

We regard the Association as the guardian of the ethics of the profession, and if there were no other motive for its existence than this one, we feel that its existence would be justified. It needs but little thought to convince one's self that, whatever may be our shortcomings, the relations of medical men to each other are characterized by a higher degree of courtesy and mutual consideration than those between members of other professions, and between business men. This we believe to be due to the influence of the Code of Ethics, which is the crystallization of every principle of honor and unselfishness, and which owes its existence to the American Medical Association. We fear there is reason to believe that the impression made by these principles is now less vivid than it has been, and no opportunity should be lost of calling attention to the golden rules laid down in the Code of Ethics.

There is a work, too, in which it occurs to us the Association might be of great service, not only to the profession, but also to the community at large, although we confess we are not prepared to immediately suggest a method by which to grapple with it. It is the growing evil of the worst kinds of quackery. Any one who reads our daily papers cannot fail to be struck with the space occupied by specious advertisements of absurd nostrums for the cure of this and that affection, while the country is flooded with circulars having the same object. It is well known that the formulæ for these nostrums are, as a rule, exceedingly simple, as witness Mrs. Joanna Stevens' "Remedy for the Stone," and the famous St. John Long's liniment for rheumatism. At the same time, the analyses of these supposed remedies requires the highest chemical skill and is costly. We simply throw out the suggestion, could the Association make a better use of the funds in its treasury than to furnish the means for such analyses, and expose the trickery and fraud by which thousands of dollars are taken annually from the pockets of those who can least afford it?

Finally, the social objects of the Association are by no means to be ignored. There is great advantage to all of us in intermingling with our fellows. Isolation tends to narrowness and egotism, and one of the most wholesome lessons to be learned in our intercourse with others is that there are others besides ourselves, as good and better, attrition with whom is of mutual advantage, whether in debate or at the dinner table.

CAN TUBERCULOSIS BE PRODUCED BY THE INOCULATION OF INDIFFERENT SUBSTANCES?

THAT a correct answer to this question is essential to a solution of the problem of the infectiousness of tuberculosis, which is now engaging the attention of pathologists and clinicians throughout the world, is evident. For if indifferent substances, like cheese or dried blood or inspissated pus, are capable of producing true tuberculosis, the operation of the inoculated bacillus of Koch may be precisely the same—that is, it may act simply as an irritant.

We have always thought that the adherents of the doctrine of the infectiousness of tuberculosis ignored too completely the results of experiments which tend to show that tuberculosis can thus be induced. This attitude is based largely, if not altogether, upon the result of Cohnheim's experiments. It is well known that this experimenter, in conjunction with Fränkel, first made a series of inoculation-experiments, which he then thought established the fact that tuberculosis could be induced by the inoculation of different substances. But in a second series of experiments, the results were negative, and he, in consequence, retracted the views he first held. This is, of course, a strong point, but it is doubtful whether we are, in consequence, justified in immediately ignoring the results of other experimenters. The most which is justified is a demand that these experiments should be carefully repeated.

In this view we are not without support, even in the home of Koch. For at a recent meeting of the Berlin Medical Society, Dr. P. Guttmann declared that among those whose experiments went to show that tuberculosis could be produced by the inoculation of indifferent substances were men against whose reputation for reliability no objection dare be made. He had recently examined the existing literature upon the subject, and, with two exceptions, the original papers. The list of names which he presented as being worthy of the highest confidence, is a valuable one for reference, and we commend it to those who vehemently declare that no pathologist worthy of the name any longer claims that tuberculosis can be produced by the inoculation of non-tubercular substances. All of

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these authors made inoculations with true tubercle, the inoculations with non-tubercular material being control-experiments. Among Englishmen are Sanderson (*Brit. Med. Journ.*, 1868), Wilson Fox (*ibid.*), and Foulis (*Glasgow Med. Journ.*, 1875). Among French writers are Papillon, Nicol, and Leveran (*Gaz. des Hôp.*, 1871); and among Germans are Lebert and Wyss (Virchow's *Archiv*, Bd. 40), Gerlach (*ibid.*, Bd. 51), Waldenburg (*Treatise on Tuberculosis, Phthisis, and Scrofulosis*, 1869). All of these observers claim to have produced tuberculosis in this way. Two papers, one by Empis (*Report of the International Medical Congress in Paris*, 1867), another by Robinson (*Philada. Med. Times*, 1881), he had not seen in the original. Whether the nodules produced by Empis were true tubercles he thinks is doubtful. In Robinson's experiments, with the inoculation of non-tubercular matter, one-half were negative and one-half positive.

During the discussion which followed, Friedlander, in reiterating an objection previously made, that these experiments were unreliable, said that all were open to two sources of error, viz., the possible admixture of tubercular with indifferent material, and spontaneously acquired tuberculosis, the result of the animal's surroundings; that experimenters had usually allowed their animals to live so long that tuberculosis might readily have developed independently of inoculation, while Koch has shown that the infection of tubercle operates very quickly.

To these objections Guttmann replied that the first source of error named by Friedlander is such an evident one that every experimenter who engaged in such work has excluded it. As to the acquired tuberculosis, the possibility of it cannot be denied; but control-experiments have been made in which sound animals, not experimented upon, were kept under the same conditions as those which had been inoculated. Both sets of animals were killed at the same time, and in those inoculated was found miliary tuberculosis; in the others, none. In other experiments, the animals were killed a comparatively short time after inoculation, and yet tuberculosis was found in the different organs.

It is such facts as these which, to an unprejudiced observer, stand in the way of the acceptance of the doctrine that tuberculosis is an infectious disease. And we hold with Guttmann that there is sufficient evidence in favor of their existence to demand a careful repetition of the experiments on which they are based before we dare believe that tuberculosis is infectious. We say this, not in a spirit of antagonism, but of conservatism, which demands a fair examination of both sides of a question before a decision is reached.

THE ABUSE OF ATHLETIC SPORTS.

As the season approaches which naturally invites to a larger participation in outdoor athletic sports, a few reflections from a medical standpoint on the abuse of such games may not be untimely.

There are two ways (independent of accidental injuries by bats, balls, etc.) in which athletic sports may be made to prove injurious. First, in the production of temporary conditions, such as syncopal and convulsive attacks due to over-exertion and exposure to the sun's rays on the part of those unaccustomed to these influences. Such accidents may occur in any kind of athletic sport involving the conditions named, but may be well illustrated by a case which came under our notice within a week:—

A young man twenty-five years old, very strong, but occupied at indoor work, joined in a game of base ball on a moderately warm day in May. He became very much interested, and instead of playing an hour as he intended, he played for at least four hours. He became overheated, went home and ate his dinner, during which he became excited in conversation, arose from the table, went to his room, and fell in a fit. When seen, he was unconscious, and had been so for at least three hours, having a convulsive seizure every now and then. An enema containing half an ounce of turpentine promptly restored him to consciousness, and the next day but one he was at his work. This young man was in typical health, and had never had a convulsion before in his life; this one was doubtless reflex, due to irritation of undigested food upon hyperæmic nerve-centres, and was clearly the indirect result of the over-exertion and exposure to the sun.

More frequent and less serious are syncopal attacks due to the same cause. Many of our readers who in their student days have gone from the preceptor's office into the hay-field for a turn at haymaking, have probably experienced the uncomfortable sensation of "giving out," and have perhaps had to bear the ridicule of companions for some time afterward.

Both of these accidents may occur in almost any game, even if it involve moderate exertion, provided a suitable subject offers. Rarer, of course, are the more serious results of heat-stroke, or thermic fever, although these are not impossible on extremely hot days, when games last a long time and involve a great deal of exertion.

But there is a consequence more serious and more permanent than the two first mentioned which occasionally results from athletic sports. This is what may be termed, for want of a better name, "heart-strain." This is only possible where the game demands continuous effort, as in rowing and running, and possibly also in swimming. It does not apply

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to cricket, base ball, or other games in which violent exertion is more or less interrupted. We have spoken of this condition as heart-strain, although it probably has its origin in the lungs. It is well known that the effect of continuous muscular exertion is to interfere with the aëration of the blood, which becomes overcharged with carbonic acid. It is known, too, that blood overcharged with carbonic acid cannot circulate with facility through the capillaries, especially of the lungs, and accumulates in them, and in the pulmonary veins. The column of blood which is driven by each systole of the right ventricle is resisted by the already filled capillaries and veins, and a high degree of tension results in the pulmonary artery. The semilunar valves are strained, sometimes made insufficient, and possibly even lacerated in extreme cases. If there be simple temporary insufficiency, a repetition of the long-continued effort in another race may so increase it as to make it permanent. Hypertrophy and dilatation of the right ventricle and auricle and general surcharging of the venous system succeed to this condition. To this ensue degeneration of the muscular substance of the heart, and to the previous shortness of breath are added palpitation and irregular action with their distressing consequences.

These consequences are, of course, not confined to athletic sports, but may attend prolonged exertion of any kind, attended with pulmonary congestion. Similar is the effect of prolonged "running to catch a train," and especially is this harmful to one who has passed middle-life, in whom the tissues have already commenced to degenerate. Who has not experienced the cardiac pain incident to such overexertion, which must be due to a state of tension of the pulmonary semilunar valves?

Finally, the "irritable heart" of the military service, the clinical history of which was so thoroughly given by Prof. Da Costa in the *American Journal of the Medical Sciences*, 1871, is probably in some instances, the result of causes similar to those above discussed. In others it appears to have resulted from less violent exertion, operating upon a heart enfeebled by previous illness, as chronic diarrhœa, etc.

It is not impossible, also, that the extra tension to which the left heart is subjected in its efforts to overcome the resistance of forced muscular contractions may also result in strain upon its vessels, although the injuries which these have suffered have generally ensued upon more sudden and forced muscular effort than is commonly practised in athletic sports.

In conclusion, while it is a matter of congratulation that out-door life is becoming more popular with girls, through the medium of lawn-tennis and similar games, and although the exercise thus taken is not of so violent a nature as to produce in them the results above referred to, it is to be remembered that even this degree of muscular activity during menstruation, is often harmful in other ways; and physicians who have the care of families with growing girls, ought never to lose sight of this fact. A timely word upon the subject may save a girl from a life of suffering.

IN the case of Fox *vs.* Gordon, involving the question of the right of the husband to remove the dead bodies of his wife and two children from the cemetery lot of his mother-in-law, the Master to whom the case was referred has decided, that there is, at least, a right of custody, if not of property. He quotes the very sensible remarks of Hon. Samuel B. Ruggles, of New York, in a similar case, that "the dogma of English ecclesiastical law, that a child has no such claim, . . . is so utterly inconsistent with every enlightened perception of personal right, so inexpressively repulsive to every proper moral sense, that its adoption would be an eternal disgrace to American jurisprudence. The establishment of a right so sacred ought not to need any judicial precedent.

"The person having charge of a body cannot, however, be considered the owner of it in any sense whatever; he holds it only as a sacred trust for the benefit of all who may, from family or friendship, have an interest in it."

BY capillary electrolysis is meant the utilization of a capillary trocar as the electrolytic needle. Dr. Henrot, who proposes this method, uses it in those cases of goitre containing cysts, and permeated by large veins. Whilst through the canula the fluid is removed, the canula, as a needle transmitting the galvanic current, brings about also the closure of the great veins. Dr. Henrot gives a case with minute details, in which this mode of treatment was entirely successful. If such an expedient be contrasted with the measures heretofore available for the treatment of vascular cystic goitre, its superiority becomes at once apparent.

DR. LEVERT has recently published a memoir advocating the use of ethyl bromide as the most suitable anæsthetic for lessening the pangs of labor. Assuming the propriety of the practice of inducing anæsthesia in all cases of labor, he maintains the superiority of ethyl bromide for these reasons:

It diminishes or suppresses the pain. It has no injurious effect on the mother or child. Labor proceeds more rapidly, and instrumental interference is less often necessary. After delivery, there are no accidents which can be properly referred to the anæsthetic, and the convalescence is rapid and sure.

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REVIEWS.

THE SUBJECTION OF HAMLET. AN ESSAY TOWARD AN EXPLANATION OF THE MOTIVES OF THOUGHT AND ACTION OF SHAKESPEARE'S PRINCE OF DENMARK. By WILLIAM LEIGHTON, Author of "Shakespeare's Dream," etc. WITH AN INTRODUCTION BY JOSEPH CROSBY, Hon. M. R. S. L. Pp. 74. Philadelphia: J. B. Lippincott & Co., 1882.

THIS work may seem quite foreign to the review department of a medical journal. As, however, it deals with psychological questions, we may, so far as our space will allow, make some comments on the motive and character of the essay.

The mental condition of Hamlet has been a fruitful topic of discussion by philosophers, poets, and psychologists. Mr. Leighton enters into the discussion with a new theory. The contention has usually been between the view that the mental condition of Hamlet is feigned, and that which holds him to have been actually disordered in mind. Of course, it is the conception of Shakespeare, and not the actual Hamlet with which the question is concerned. Hence, what was the central idea of the great dramatist? Did he mean to convey the idea of a Prince at a Royal Court feigning madness to achieve his purpose of revenge? Or was his purpose to make the Prince actually melancholic, and suffer from acute exacerbations? Mr. Leighton maintains that it was Shakespeare's purpose to have it seem that the reason of the Prince was actually overthrown by the horrible events of which he became cognizant; by the superstitions connected with the appearance of the ghost, and the other supernatural adjuncts. This view is supported by ingenious reasoning; and although he makes no attempt to define the form of mental derangement, Mr. Leighton constructs a fine argument to prove mental unsoundness. The essay is well written and is an interesting exposition of his theory.

SOCIETY PROCEEDINGS.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Fifth Annual Congress, held in New York, May 21, 22, and 23, 1883.

(Specially reported for THE MEDICAL NEWS.)

(*Concluded from p. 610.*)

THIRD DAY. MAY 23D.—AFTERNOON SESSION.

DR. GEORGE W. MAJOR, of Montreal, read a paper on

THE VALUE OF POST-LARYNGEAL PAPILLOMATA AS A MEANS OF DIAGNOSIS IN TUBERCULAR DISEASE.

He held that although these growths were recognized as present in a number of cases of laryngeal phthisis, that no special importance as a means of diagnosis or prognosis has been attached to them. It was a difficult matter to say accurately in what proportion of cases of tubercle these developments were to be found, as frequently before coming under observation—laryngoscopically—the cases had either advanced to ulcerative changes, or undergone some local treatment modifying the condition of the facts. He thought about twenty per cent. of the cases might be a safe estimate. In his experience *feathery* papillomata occurring in the region stated were as valuable a means of diagnosing at a very early stage, and before physical signs had been developed, as any before the notice of the profession. Why this should be he did not pretend to say, any more than he would attempt to explain the proneness of other parts to first affection. The *velvety* growths he did not regard as of paramount value, but considered they should be carefully pronounced upon.

In his private practice, and in the Montreal General Hospital clinique, he had found the conditions referred to, to be a most valuable aid to diagnosis, when present, and had observed the rapidity with which tuberculosis extended in this class of cases.

His object, he said, in bringing the subject before the Fellows of the Association, was to elicit an expression of opinion from those whom opportunities so well fitted them to speak with authority.

DR. ASCH remarked that he had frequently observed in phthisical cases the inter-arytenoid projections described by Dr. Major, but that he had not considered them diagnostic of pulmonary disease as he had observed them in case of asthma, and in others in whom there was no tubercular complication; his treatment, in cases where the projections did not demand evulsion by the forceps, consisted in the application of astringents as described by Dr. Major.

DR. MAJOR said, in reply to Dr. Asch, that, in the "velvety" condition of the space under discussion, he had not found lung complication usually, but such cases were hereditarily tuberculous. After the filamentous stage, he had yet to see a case recover; he considered where that state had developed the prognosis was markedly unfavorable.

A CASE OF ENORMOUS TUMOR, REMOVED FROM THE GLOSSO-EPIGLOTTIC SINUS.

DR. E. C. MORGAN, of Washington, D. C., reported a case of a large pedunculated myxo-sarcoma, originating from the left glosso-epiglottic fossa and a portion of the lateral pharyngeal wall, in which he was enabled to remove the tumor in rather a novel and primitive manner, viz., by getting its pedicle between the tips of the *index* and *middle fingers*, and using considerable *torsion* and *force*.

The patient, a strong, well-devolped man, of forty-nine years, had long suffered from dyspnœa, dysphagia, and aphonia, which symptoms ceased almost immediately after the extraction. The tumor measured two and one-half inches in lesser, and two and three-quarter inches in greater circumference, was ovoid, of firm consistence, and had a pedicle one-quarter inch long.

Microscopic examination demonstrated that it was a myxo-sarcoma. The specimen and drawings were exhibited, and it was stated that the man is doing well, two and a half months after the operation. Laryngoscopic examination shows that the growth was completely removed.

During his remarks, Dr. Morgan took occasion to say that pharyngeal tumors are, according to his researches, not so rare as is generally claimed, and presented a tabular statement, embracing sixty-one authentic examples. Sarcomata predominate in the pharynx. In concluding, he submitted a complete bibliography of the entire subject, containing seventy references to interesting contributions.

DR. DEBLOIS said: In listening to the very instructive and interesting paper of Dr. Morgan, we may draw at least one useful suggestion from it, that is the proper use of our fingers. As our practice in laryngology becomes more and more scientific, so much the more are we addicted to the exclusive use of instruments to the exclusion of more natural means. And in this connection he would beg leave to suggest the propriety of the use of the finger-nail in the extirpation of growths in the larynx. He had the good fortune in this way to partially remove a growth from the vocal cord; where, owing to the hyperæsthesia of the parts, the introduction of the laryngeal forceps was impossi-

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ble. Although this procedure may seem brutal, it appeared to him at least, quite as justifiable as in introducing the forceps at random when the parts cannot be seen.

With regard to the bibliography of the subject, he thought that the Association owed its thanks to Dr. Morgan, the extent of whose extensive and laborious researches had just been presented. There are few who would have sacrificed so much of their own time for our instruction.

DR. INGALS referred to a case of a very large growth in the naso-pharynx extending into the mouth, which greatly obstructed breathing, which was operated upon by Dr. Moses Gunn, of Chicago; who removed the tumor with his finger. He had not been able subsequently to discover the point of attachment of the tumor. With regard to the brutality of attempting to remove laryngeal growths with the finger, he would merely state that it would depend upon the size of the operator's finger.

DR. DELAVAN said that he recalled one of the cases referred to in the paper by Dr. Major; he had been present when the operation for its removal was performed by Dr. Wagner; it was in a girl of twenty-two years of age, who had not been aware of any difficulty in her throat until a few weeks before applying for treatment. Upon examination, a growth one and one-fourth inches long by three-fourths of an inch wide was seen depending upon the posterior border of the soft palate; it was found to be attached near the floor of the posterior nares on the left side. Schrötter's écraseur was used, but it was impossible to remove it in this way, and it was finally divided with great difficulty by means of a strong knife. Upon microscopic examination, the outer surface was found to be covered with a thick coating of epithelium having a horny layer, the basement membrane, and under this a thick layer of fat; in the centre of the tumor was a large double plate of true cartilage surrounded by a fibrous sheath of perichondrium; the point of interest in the case was that the patient had been unconscious of any difficulty in her throat until within a short time, although the growth was evidently congenital. It resembled the helix of a normal ear. He had at the time reported the case at a meeting of the New York Pathological Society, and had found that up to that time at least six cases had been placed on record. As to the removal of morbid growths in this locality with the finger, he thought the method particularly applicable in cases of adenoma at the vault of the pharynx; it seemed illogical to examine such a case with the finger and then resort for its removal to an instrument, when the examination and the removal might be combined in the one manipulation. He thought that the use of the finger-nail in certain favorable cases was even superior to the use of instruments.

DR. LINCOLN said that in order to illustrate the possibility of operating with the fingers through the mouth upon tumors of large size, he was prompted to add that in his researches upon the treatment of naso-pharyngeal tumors, in the paper which he had read yesterday, he found a report of a case of naso-pharyngeal polypus removed by Dr. Whitehead by the finger, unaided by instruments, if he remembered correctly.

DR. ASCH said that he would merely suggest that a difficulty is experienced in introducing the finger behind the palate in a great many cases, especially in women. There are, unquestionably, cases in which such a method could be applied, but in others it could not be carried out without severe laceration.

DR. BOSWORTH said that Meyer reports some three hundred cases of examination of the naso-pharynx with the fingers, and in which he relied upon the finger in diagnosis.

DR. MORRIS J. ASCH then read a paper entitled

A CASE OF SUDDEN DEATH OCCURRING AFTER TRACHEOTOMY, WITH REMARKS.

R. S., 44 years old, had been suffering for a year with hoarseness and difficulty in breathing, gradually increasing until at the time of presenting himself at the Throat Department of N. Y. Eye and Ear Infirmary, when he experienced attacks of suffocation on the slightest physical exertion; slight cough, although he did not complain of pulmonary disease. Examination showed complete paralysis of abductors of the larynx, with ulceration and infiltration of ventricular bands and ary-epiglottic folds. Tracheotomy was advised and performed, the patient doing well after the operation, the ordinary precautions having been observed, until the second day, when he suddenly expired during the visit of the attending surgeon to the ward. The death was attributed to heart-failure from fright; the post-mortem gave no material cause for the fatal result. The lesson to be learnt from this experience is that no case of tracheotomy performed for obstruction caused by acute or chronic disease, however, easy of performance, should be viewed as anything but a very serious affair, and that it is the wise part to be prepared for a sudden unfavorable result.

DR. ANDREW H. SMITH read a paper on

ADHESIONS OF THE VELUM TO THE WALLS OF THE PHARYNX,

usually the result of syphilis, and especially of late tertiary manifestations; when complete, is apt to cause deafness from otitis media, owing to confinement of secretions in pharynx in contact with the inner end of Eustachian tubes, and the absence of the influence of deglutition in keeping the middle ear inflated. Smell is lost, and taste impaired.

Treatment consists in dilating any opening which may exist, and keeping it open by daily passage of a sound by the patient. Complete adhesion requires a cutting operation, followed by the introduction of a tube, gutta-percha plate, or other device to keep the surfaces from readhering. Dr. Delavan had succeeded in one case in preventing adhesion by cauterizing with monochloractic acid, the eschar from which remains adherent until cicatrization is complete beneath.

DR. DEBLOIS said it was his good fortune last winter to have under his care a patient with adhesion of the velum in the posterior wall of the pharynx, such a condition as had been described by Dr. Smith. The nasal cavities were easily cleansed by filling them with Dobell's solution, and then, by forcing into one nostril a column of compressed air, the solution and the retained solutions were driven out through the other. Every day a small throat-mirror was forced up behind the uvula, and there is no doubt that an opening would have been made had it not been that there was a vertical perforation, the edges of which were so closely adherent that nothing could be forced between them; small bubbles of air only could be forced out behind the velum. Unfortunately, just as an operative procedure was determined upon, the patient was lost sight of. Dr. Delavan's suggestion for preventing these adhesions of the newly cut surfaces certainly appeared to him very valuable, and he hoped to be able to give it a trial.

DR. INGALS said that about two years ago, he had two little patients brought to him, the one seven the other nine years of age; in the younger one there was complete adhesion of the velum to the posterior wall, excepting a small opening about a line in length, in the older one a similar condition existed but the opening was a little larger. The mother stated that this condition had followed an attack of diphtheria. The

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children had been under treatment by another physician for deafness; upon examination he found the naso-passages free. He inquired what could be done with such little patients, and whether an operation could be performed under an anæsthetic with perfect safety?

DR. SMITH said, in closing the discussion, that it appeared to him that the operation could be performed in these young subjects, but he doubted whether the advantages of an operation would be commensurate with its difficulties. He believed that it would be better to wait until the children had grown somewhat, and become more manageable. He did not see any especial difficulty in the administration of anæsthetics in these cases.

The PRESIDENT announced that the last scientific paper on the programme had been read, making in all twenty-one to which the Fellows had listened at the present Congress.

THE CHAIR appointed the retiring Vice-Presidents a Committee to conduct the newly elected President to his seat.

DR. LEFFERTS, on leaving the Chair, congratulated Dr. Bosworth upon his accession to the dignity and honors of the Presidential office, and also congratulated the Fellows of the Association upon their choice of a presiding officer for the coming year. In turning over to his successor the office, after a year's service, upon which he could look with feelings of honor and pride, he did so with wishes for the continued prosperity of the Association, which is now in the best condition in which it had ever been, and after one of the best meetings which it had ever held. He concluded with the cordial wish that the prosperity of the Association might continue during the coming year.

The PRESIDENT invited the Vice-Presidents to take their seats and introduced them to the Association. He said that he could only express his very cordial acknowledgment to the gentlemen of the Association for the very high honor they had conferred upon him in calling him to occupy this office during the coming year. He said that we belonged to a profession which offers very few rewards for work such as the world applauds, but he did not know that he could ever hope to receive a higher one than this. He felt that this Association was very largely indebted for its success to his predecessor, Dr. Lefferts, who had served them faithfully for five years as Secretary and Treasurer and in the Presidential office. The best wish that he could express for the Association, was that it might continue in as prosperous a condition as it was at present.

DR. INGALS, on behalf of the visiting Fellows, returned thanks for the warm hospitality the had received and their high appreciation of the retiring President's services. He expressed the sense of regret that the trouble of entertaining the Association should have been again put upon its members in New York City, but the visiting Fellows would help to make them as light as possible, and he promised a larger attendance from the west next year.

The PRESIDENT, DR. BOSWORTH, then announced the Fifth Annual Congress of the American Laryngological Association adjourned.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Thirtieth Annual Meeting, held in Tarboro, May 15, 16, and 17, 1883.

(Specially reported for THE MEDICAL NEWS.)

FIRST DAY, MAY 15TH.—MORNING SESSION.

THE Society met in Annual Session on Tuesday, May 15, at 10 A. M., and was called to order by DR. L. L. STATON, *Chairman of the Committee of Arrangements.*

DONALD GILLIAM, ESQ., of the Tarboro bar, delivered an

ADDRESS OF WELCOME,

and the PRESIDENT, DR. J. K. HALL, of Greensboro, responded to the address, and accepted in behalf of the Society the hospitalities offered.

After the calling of the roll, the President appointed as a *Committee on Credentials*, DRS. PITTMAN, O'HAGAN, and WHITEHEAD; on *Finance*, DRS. JONES, MCDONALD, and SPEIGHT.

DR. O'HAGAN introduced DRS. CHAS. M. SHIELDS, and LEWIS WHEAT, *Delegates from the Virginia Medical Association*. They were invited to a seat on the floor, and to participate in the meeting.

AFTERNOON SESSION.

THE SECRETARY read, on behalf of DR. R. L. PAYNE, JR., *Chairman*, who was unable to be present, the

REPORT OF THE SECTION ON SURGERY.

DR. L. L. STATON, of Tarboro, reported a case of

ABDOMINAL ABSCESS.

DR. HAIGHT, of Wilmington, reported a similar case, in which the bowels were relieved by the use of belladonna. An incision seven inches long was made over the swelling, and a fecal odor was at once observed. A large amount of pus was evacuated, and the opening closed. A fistula subsequently formed.

The Report of the Treasurer showed a balance on hand of $71.80.

SECOND DAY, MAY 16TH.—MORNING SESSION.

The report of the *Committee on Obituaries* was made by Dr. Holms, Chairman.

DR. DUFFEY, of Newberne, reported a case of

ARTERIO-VENOUS ANEURISM.

Seven years ago the patient received an injury to the side of the head just behind the ear. Two years after this she complained of pain, and an irregular, tortuous, pulsating tumor about the sige of a turkey's egg had developed in the course of the posterior auricular artery. An operation was proposed, but the woman would not consent to it, and she was then lost sight of for some time. When the aneurism was again examined it was found much enlarged. Both the arteries and veins of the region were enlarged and tortuous. Behind the pinna of the ear and under the integument of its posterior surface was a large pulsating cavity. In front of the tragus was another cavity, not quite so large. This corresponded to the position of the temporal artery. Nearly the whole surface of the pinna was distended and pulsating. The external jugular vein was two to two and one-half inches in circumference.

The woman was informed that it was only a question of time when the tumor would burst, and was instructed to catch and hold the rent until surgical aid could be procured.

On July 2, 1882, the place pained her very much, and the next night the tumor burst. Her husband seized the rent and stopped the bleeding. Dr. Duffey saw her next morning and found that she had lost much blood. The common carotid was tied low down for fear of the upper portion being diseased. During the operation a vein was cut near the jugular and much hemorrhage occurred. This was checked by ligation. The aneurism was now freed from clot, pressure removed, and blood was seen to flow freely from the rent in the sac, although the artery was tied. This was

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stopped by passing long pins beneath the sac and applying a figure-of-eight suture. Compresses and bandage were put over this and the woman placed in bed.

All went well for a few weeks, when hemorrhage occurred at another point where the wall was very thin. This was stopped as before by means of pins. The wound made in ligating the artery healed well, but after all this, bleeding occurred a third time. Small pieces of compressed sponge were now packed over the surface and around the tumor, and confined by bandage. Over this, and around the head and lower jaw, about five yards of garter elastic were applied, the band being drawn very tightly.

The centre of the tumor was left exposed, and into this thirty minims of persulphate of iron injected. The elastic was removed in about two hours on account of the unbearable pain it produced. The patient did well after this. A little sloughing took place at the point of injection, nothing more. The tumor soon began to shrink, and all that is now left of the old tumor is a small fluid portion which fluctuates, and will require another operation.

DR. SATCHWELL, of Rocky Point, read a paper on

ANTISEPTIC SURGERY.

DR. FURGERSON, of Halifax, presented *Three Morbid Specimens*.

DR. M. L. JAMES, of the Virginia Medical College, was introduced by Dr. Moore, and invited to participate in the deliberations.

A COMMITTEE ON NOMINATIONS

was appointed, consisting of Drs. Pittmann, Summerell, Foote, Farson and McDuffee.

A JOINT MEETING OF THE SOCIETY AND STATE BOARD OF HEALTH

was then held. There being two vacancies in the Board, DRS. J. W. JONES and D. MCDONALD were elected to fill them.

AFTERNOON SESSION.

DR. FOOTE, of Warrenton, reported a case of death from opium taken by mistake for quinine. Dr. Foote then offered a resolution which set forth that all poisonous drugs should be kept in bottles or packages of such shape as to be as easily recognized by the sense of touch as by sight.

DR. WOOD suggested that a committee be appointed to confer with the State Pharmaceutical Association, for the purpose of adopting such resolutions as may be thought best.

DR. FURGERSON, of Halifax, presented the report of the chairman of the

SECTION ON MATERIA MEDICA AND THERAPEUTICS.

DR. HILL, of Goldsboro, read a short paper on the

AMBROSIA TRIFIDA, OR RAG-WEED,

a plant indigenous to this State. He has used the plant as a styptic in epistaxis, pulmonary and uterine hemorrhage, hemorrhage from the bowels, hemorrhagic diathesis, etc., and found it of great value.

DR. SUMMERELL, of Salisbury, confirmed Dr. Hill's experience with the plant.

On motion of DR. MCDONALD, the plant was referred to Dr. Wood for classification and description.

DR. HOLMS, of Clinton, reported a

SUCCESSFUL REMOVAL OF A MULTILOCULAR OVARIAN TUMOR.

DR. MCDUFFEY, of Fayetville, read a paper on *Syphilis*.

At 8 P. M., DR. W. R. WILSON delivered the *Annual Address*.

THIRD DAY, MAY 17TH.—MORNING SESSION.

The reading of the annual essay was dispensed with on account of the illness of Dr. Barringer, its author.

MISCELLANEOUS BUSINESS.

DR. ROUNDTREE offered the resignations of DRS. HYOT and BRYANT, of Kingston.

DR. HINES, of Raleigh, offered a resolution which authorized the Secretary of the Board of Medical Examiners to publish for four weeks, in their respective county papers, the names of those doctors who had just passed an approved examination before the Board. The resolution was adopted.

DR. HINES thought this was only justice to the young men joining the Society, from the fact that there were many men in the State who were practising medicine, but who had attended but one course of medical lectures, and consequently had not joined the Society. This would give the people an opportunity of knowing who were the qualified physicians.

THE NOMINATING COMMITTEE

made the following report:

CHAIRMEN OF SECTIONS:

Surgery, DR. L. L. STATON, of Tarboro.
Practice, DR. W. P. MERCER, of Toisnot.
Microscopy and Pathology, DR. JOHN WHITEHEAD, of Salisbury.
Obstetrics and Gynæcology, DR. S. B. JONES, of Charlotte.
Materia Medica and Therapeutics, DR. J. T. STRICKLAND, of Thomasville.
Diseases of Children, DR. KEMP BATTLE, of Chapel Hill.
Orator, DR. JULIAN BAKER, of Tarboro.
Essayist, DR. J. L. NICHOLSON, of Onslow.

OFFICERS FOR THE ENSUING YEAR:

President.—DR. A. B. PEARCE, of Weldon.
First Vice-President.—DR. F. W. POTTER.
Second Vice-President.—DR. GEO. W. GRAHAM.
Third Vice-President.—DR. R. DILLARD.
Fourth Vice-President.—DR. GEO. W. LONG.
Treasurer.—DR. A. G. CARR, of Durham.
Secretary.—DR. L. J. PICOT, of Littleton.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION:

DRS. JNO. MCDONALD, A. W. KNOX, H. R. HOOD, WM. CHEATHAM, J. W. MCNEAL, THOMAS HILL, S. S. LATCHWELL, T. S. BURBANKS, L. F. LEWIS, D. J. CAIN, and W. H. LILLY.

DR. GEORGE W. LONG, of Graham, read the *Report of Section on Practice of Medicine*.

THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

DR. WOOD, of Wilmington, offered a resolution requesting our representatives in Congress to use their efforts in procuring a fire-proof building for the library of the Surgeon-General's Office. The resolution was adopted, and a committee consisting of DRS. WOOD, HAIGH, and DUFFEY, appointed to confer with the representatives on this subject.

DR. CARR, of Durham, read the report on

DISEASES OF CHILDREN.

DR. MACON reported a case of *Opium Poisoning* successfully treated by atropia.

AFTERNOON SESSION.

The paper on *Obstetrics and Gynæcology*, by DR. HADLEY, and that on *Microscopy and Pathology*, by DR. CROWELL, in the absence of the authors, were referred to the Committee on Publication.

A vote of thanks was tendered the citizens of Tarboro, and the members of the Edgecomb County Medical

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Society, for the hospitalities which they had shown to the State Medical Society.

The Society then adjourned to meet in Raleigh on the third Tuesday in May, 1884.

At 8 P.M. a handsome banquet was given by the Edgecomb County Medical Society.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, May 8, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

FRACTURE OF THE PATELLA.

DR. L. A. STIMSON presented a patient who had suffered from an ordinary transverse fracture of the patella. The result was very close union, but with recognizable mobility of the fragments upon each other. The treatment consisted in immobilization of the limb, with a fenestrated plaster apparatus, in the extended position; the fragments being held in contact with India-rubber tubing, one piece above and the other below the patella. The fracture occurred twelve weeks ago, and when first examined the fragments were separated from three-fourths of an inch to an inch. An interesting feature of the case was the fact that the patient had suffered from fracture of the patella on the opposite limb fifteen years ago, which was treated with an iron horseshoe arrangement, and apparently bony union had taken place.

Dr. Stimson presented a second patient with compound fracture of the patella, in whom the mobility of the joint was about the same as that in the first case, two weeks ago. The details of the history of the case appear in the following paper.

DR. STIMSON then read a paper

ON SOME COMPOUND ARTICULAR FRACTURES.

(See page 612.)

DR. POST said he remembered the time when compound fracture of the knee-joint was regarded as *ipso facto* calling for amputation. He recalled a case in the New York Hospital, and under the care of Dr. Kearney Rogers; a laboring man, who had his patella fractured by frozen earth falling upon the limb; and there was a free transverse wound opening into the knee-joint. The surgeons decided that the limb should be amputated, but the patient decided that the operation should not be performed. The external wound was very free, so that drainage readily took place, and the patient recovered without any considerable amount of inflammation. This occurred about the year 1840, and to the best of his recollection was the earliest case which opened the eyes of the surgeons to the expediency of attempting to save the limb in cases of knee-joint fractures.

DR. KEYES said he had just received a letter from one of his former students (Dr. Alexander), now in London, stating that he had recently followed Mr. Lister in the treatment of two cases of simple fracture of the olecranon by opening the joint, drawing the fragments together with wire, hammering the ends of the sutures down smoothly, and then closing the wound. The operations were performed under full antiseptic precautions, and all of the patients had done well; that is, neither suppuration nor inflammation had occurred. What the ultimate result would be, with reference to mobility, of course had not been ascertained.

Dr. Keyes had treated one case bearing on the subject in Bellevue Hospital; that of a boy, who had suppuration of the knee-joint with necrosis of the patella. The condition was due to a traumatic cause, the exact nature of which he did not recall, but the suppurative process invaded the joint. Dr. Keyes opened the joint freely upon both sides, passed a drainage-tube completely through the limb, and washed it out freely with an antiseptic solution. At about the same time suppuration occurred above the patella, and he opened the abscess and finally removed the entire patella. In the dressing, simple cleanliness was observed and complete drainage secured, and the boy recovered with a movable joint and a new patella.

DR. SANDS recalled a number of cases in which recovery had taken place after compound fracture of joints. He remembered one, a case of compound fracture of the patella, which he had treated in Bellevue Hospital. As in the case mentioned by Dr. Post, it was believed that the joint would suppurate, and it was thought that amputation was advisable, but under simple dressings the wound closed, suppuration did not occur, and the man recovered with a perfectly normal joint. He had seen a number of cases of fracture into the elbow-joint which had recovered, some with and some without antiseptic dressing. He had also excised the astragalus in two cases, one a compound dislocation with fracture, and the other a fracture in which the greater part of the bone was displaced, and pressed upon the soft parts, threatening mortification. In the last case, an opening was made, and the fragment of bone was removed. In the first case, no antiseptic dressing whatever was employed. In the second case, full antiseptic precautions were observed at first, but the physician, under whose charge the case remained, substituted a simple water-dressing, and the patient did well. In both cases, the patients recovered with a limited amount of motion at the ankle, as might be expected after such an injury.

Dr. Sands thought the point which Dr. Stimson made with regard to the concomitant injury of the soft parts in cases of fracture was a very important one. He believed that most surgeons would agree that often the least important lesion in cases of fracture is that of the bone, and that compound fractures often do badly because the soft parts are so severely injured that their vitality cannot be maintained.

Whether American surgeons were not thoroughly well versed in antiseptic methods, he was not prepared to say; but evidently the results obtained in this country were not so favorable as those which had been published in foreign journals.

Sometimes operation-wounds of joints pursue an unfavorable course in spite of every precaution; for example, in a case of old fracture of the patella, treated at one of our hospitals, by joining together the fragments with silver wire, the Listerian method was strictly carried out; nevertheless, suppuration followed, and the patient lost her life. In another instance, in which a simple fracture of the patella was converted into a compound fracture, and the bones were wired together, the patient had a severe attack of inflammation of the joint, and was very ill for a long time, although she finally recovered with a stiff joint. He should be disposed to treat a compound fracture of a joint by very careful washing with an antiseptic solution, by free drainage, and with the least amount of excision possible.

DR. GERSTER was able to recall a few cases of fracture involving joints, one of which perhaps was worthy of mention. A grocer, while unloading a heavy cask, lost his balance, fell, striking upon one elbow, and the barrel rolled over the same arm. Dr. Calle had charge of the case, and found an extensive compound fracture of the elbow-joint, both condyles being involved, and a single split of the bone entering the joint, so that the whole fracture presented an appearance very much like that of the letter Y. The external condyle was completely detached. On the outside of the limb there

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was a large lacerated wound opening into the joint. The periosteum having been almost entirely torn from the external condyle, Dr. Gerster removed the bone, together with the eminence corresponding to the articulating surface of the radius. The spurlike sharp projection of the diaphysis of the humerus was sawn off, and a counter-opening was made on the inner aspect of the joint. The wound was washed out well with a five per cent. solution of carbolic acid. Drainage-tubes were inserted, and the wound in the soft parts was united by a sufficient number of sutures to give the joint a certain amount of support. Antiseptic dressings were applied, and the limb was placed upon a splint. When the patient came from under the influence of the ether, he went into a condition of violent mania, and thrashed about with the injured arm very severely. After he had been quieted by a hypodermic injection of morphine, the dressings were removed, and it was found that a large venous hemorrhage had taken place, which was controlled by pressure, and the dressings, with the splint, were reapplied. Despite the extensive injury originally done to the limb, and subsequently by the violence of the patient, the case did very well. No fever followed, and Dr. Gerster attributed the result largely to the fact that it came under observation very early, before any infectious process had commenced in the wound. The final result was that perfectly good motion was established. A small fistula remained open about five months, and then closed, and mobility subsequently became perfect. Passive motion was begun about the third week. There may have been some new bone-formation, but nothing like an external condyle developed. The radius was fixed in its normal position, and all of the motions of the limb were apparently complete.

Dr. Gerster related a second case, one of extensive injury of the ankle-joint. The injury was caused by falling from a wagon, breaking the ankle, and the patient was brought into the hospital five hours afterward, where the wound was dressed without washing, and simply by sealing it up. Within three days, intense phlegmonous inflammation developed, and amputation was necessitated in order to save the patient's life. Early and thorough-going aseptic measures must decide the fate of the injured limb.

DR. POORE referred to a case of compound fracture of the ankle-joint, which he saw when an interne in the Old New York Hospital. The end of the tibia protruded and was cut off. Suppuration of the joint occurred, but the man recovered with good motion.

DR. BRIDDON said that twenty-five years ago it was a disputed point as to whether it was proper or improper to resort to excision of protruding bones in compound fracture of the ankle-joint.

DR. POST said there was a case of malpractice on record, for cutting off the protruding extremity of the bone under these circumstances, and so far as he could recollect, the case was decided in favor of the surgeon.

THE PRESIDENT said that his own convictions were in favor of a certain plan of treatment well known to the Society, namely, that by through drainage, and by the use of it he had secured very satisfactory results. The drainage-tube is retained in the wound until granulation has fairly begun. He had employed it in compound fracture of the elbow-joint, but he did not remember to have used it in any case of similar injury to the knee-joint. In the elbow-joint he passed it through the capsule always behind the joint, and allowed it to remain from four to six days.

DR. STIMSON asked if in the third case which he reported, the President would have treated it by means of thorough drainage.

THE PRESIDENT answered that he would not, that he would have in that instance sealed the wound with collodion.

DR. BRIDDON presented specimens accompanied with the following history.

EXCISION OF TONGUE AND FLOOR OF MOUTH, LIGATION OF BOTH LINGUAL ARTERIES.

David, aged sixty-five, native of Ireland, single, laborer, family history good, is not aware of any predisposition to cancer, no history of syphilis, has been a smoker for thirty years. Three months ago he noticed something on the under surface of the tongue, that impeded its movement, especially preventing protrusion; it gradually increased, was not exceedingly painful but interfered with eating and talking; has had no hemorrhages, but complains of pain in his left ear.

Admitted to Presbyterian Hospital, April 27, 1883. Examination of mouth reveals an irregularly shaped ulcer involving the under surface of the tongue and the floor of the mouth as far forwards as the internal surface of the anterior portion of the lower jaw. It involves principally the left side of the tongue, but passing across the mesial line it encroaches on the right. Its edges are slightly everted, unequal, irregular, excavated, base indurated, motions of the organ impeded, he cannot elevate its tips, ganglions not involved, spontaneous lancinating pain, darting towards ear. Diagnosis, epithelioma; removal advised. Operation May 2, 1883, 2.30 P.M., under the influence of ether. The superficial veins were very large, the facial as it passed over the jaw equalling in size the little finger, and as the incisions had to be carried into close proximity with them, it was necessary to proceed with deliberation; on the right side the superficial structures were divided until the posterior belly of the digastric muscle and the hypoglossal nerve were exposed, the greater cornu of the hyoid bone was steadied with a uterine tenaculum, a curved needle carrying a ligature was then passed under and around it, and traction upon this brought the process nearer to the surface and steadied the hyoglossus muscle, an incision was then made through the muscle parallel with and below the nerve, and the artery was exposed without any further difficulty and was secured with a carbolized silk ligature.

On the left side the artery was tied within the digastric triangle. Considerable difficulty was experienced in separating the capsule of the submaxillary gland. It will be remembered that the disease was most extensive on this side of the mouth, and that might have had something to do with it; at all events the gland was suspiciously indurated, but not so much so as to warrant its removal. It was not an easy matter to keep it out of the field of operation. The artery was found below the nerve, but it was more difficult to isolate than on the right side; it was also secured with a silk ligature.

Attention was then paid to the mouth. A scalpel was then carried round the maxilla close to the bone, but not quite anterior to the limits of the disease. The soft parts were then cleared from the surface of the genio-hyoid muscles by strong, blunt-pointed curved scissors. This dissection was carried beyond the limits of the disease, and then a transverse section completed the extirpation; a few small bleeding points were secured in the floor of the mouth, and all the soft parts covering the posterior surface of the front of the jaw were removed with the sharp spoon. For three or four days there was considerable swelling below the left side of the jaw, but it has subsided; fetor of the mouth has diminished under the hourly use of a wash consisting of borax, glycerine, and tincture of

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benzoin, and now six days after the operation he is sitting up in bed doing well.

DR. BRIDDON also presented fragments of bone removed from the elbow-joint.

FUNGOUS ARTHRITIS, RESECTION OF ELBOW-JOINT.

Maurice W., aged 40, native of Ireland, married, longshoreman, says that his family history is good, and that he has always regarded himself as a healthy man. He fell on his left elbow three years ago, but continued to work for two years, complaining only occasionally of soreness in the joint, eighteen months after the injury the joint began to grow stiff, and this condition increased until eight months ago, when pain became more annoying, and it became red and swollen, several incisions were made at that time evacuating matter, the incisions contracted, and the discharge continued in diminishing quantity.

Admitted to Presbyterian Hospital, April 23, 1883. General condition pretty good, left arm flexed to nearly a right angle, the elbow-joint is occupied by a fusiform swelling that reaches three inches above and four below the line of articulation; movements limited, but not accompanied by crepitus; above the superficial swelling there can be detected a deeper seated swelling, evidently periosteal, and reaching to the middle of the humerus; there are several puckered cicatrices about the joint, and the partially healed remains of an incision recently made; through several of these sinuses a probe appears to traverse the joint, and at one point comes in contact with carious bone.

Diagnosis, fungous arthritis; resection advised. Operation was performed May 5th under the influence of ether by the ordinary method of procedure. The joint was found completely disorganized, cartilages destroyed, nearly everywhere the dense lamella of bone that underlies the cartilage was gone, and the cancellous structure exposed, its spaces filled with granulation tissue.

DR. HALSTED suggested that the reason why Dr. Briddon experienced so much difficulty in securing the lingual artery upon one side, was that his assistant, while attempting to draw the hypoglossal nerve out of the way with a hook, at the same time raised the lingual artery with it, and the hyoglossus muscle. He thought this was the case, because, as soon as the assistant relaxed his hold with the hook, the artery was readily exposed. Dr. Halstead also offered the suggestion, that instead of dividing the muscle at right angles with the direction of the fibres, ligation would be facilitated considerably by simply separating the fasciculi to any extent which might be necessary without cutting.

DR. DRIDDON remarked that he was particularly struck with the facility given to the operation by fixing the greater cornu of the hyoid bone with a thread, so that it could be placed under the complete control of the assistant.

DR. POST believed it to be a general surgical principle, that wherever a loop of thread could be used instead of the forceps or hook to secure mere fixation, it was much more desirable than to employ the vulsellum or hook, or other means, as it was more secure.

DR. STIMSON said it seemed to him from the facility with which the tongue could be drawn out from the mouth—a fact mentioned by Dr. Briddon—that the hemorrhage might have been controlled very readily, even if it had been much more severe than it was.

DR. BRIDDON said his impression was that Whitehead's operation would do away with the necessity of ligating the lingual artery at all in these operations.

The PRESIDENT remarked, concerning the second specimen presented by Dr. Briddon, that about three weeks ago he excised the elbow-joint for caries, treated it with thorough drainage, and experienced no trouble whatever. No suppuration occurred outside of the joint, and the patient is far advanced toward recovery. The temperature was never elevated above 101° F. He removed the drainage-tube at the end of six days.

MYXOMA-SARCOMA OF THE UTERUS.

DR. F. LANGE presented a specimen consisting of a uterine tumor, and the ovaries removed by supravaginal amputation twenty-four days ago, from a woman forty-four years of age. Microscopical examination showed that the growth was myxo-sarcomatous, large spindle-cells predominating. The entire mass, solid and fluid, weighed at least twenty-five pounds. The following history was given:

An otherwise healthy woman, had borne five children, the last being delivered fifteen years ago. Since that time she has been regular, but the menstrual flow has been somewhat abundant. About five or six years ago she noticed some increase in the size of her abdomen, but it gave her no trouble whatever, and she did not consult any one until a year and a half ago, when she consulted a woman, who by some manipulation caused a watery discharge to take place from the vagina, and this was followed by a decided decrease in the size of the abdomen. After a short period, however, the tumor again increased in size, and she then applied to her family physician, who told her that the growth of her abdomen was due to an increase in the size of the uterus, and that nothing could be done for her. Dr. Lange saw the patient first early in March, of this year, at which time the distention of the abdomen was very great; the largest circumference was one hundred and twenty-two centimetres, due apparently, in great part, to the presence of a solid tumor starting from the pelvis, and located chiefly in the right side of the abdomen. It extended upward to the ribs, the umbilicus was very much distended, and the fact that in the erect posture the umbilicus was pouting, and was collapsed in the horizontal posture, together with the dulness prevailing in the lumbar region which cleared up when the patient assumed the lateral position, led him to the conclusion that there was a certain amount of fluid in the abdominal cavity. The tumor was movable in the lower part, but seemed to be attached at the upper part, where the patient complained of considerable pain. Before the development of this pain she had scarcely complained of any discomfort, except from the size of the tumor. There was a pronounced uterine murmur over the lower part of the abdomen. Afterward, examination showed the vaginal portion of the uterus very much elevated, so as to be scarcely touched with the finger, but movement given to the tumor from the outside was communicated to the vaginal portion. The probe entered the uterus to the depth of three inches without difficulty. The great distention of the abdomen left it in doubt whether cystic degeneration of the right ovary did not exist apart from the tumor of the uterus. An exploratory incision, however, was decided upon. In the apparently cystic portion of the growth a puncture was made, but fluid could not be removed, and subsequently it was proved that it was of a colloid character which could not pass through the canula. The elastic ligature was applied to the cervix extra-peritoneal, the growth was divided a short distance above the ligature, the stump was cauterized, powdered with iodoform, and then covered with peritoneum detached somewhat above. The external incision was about 15 inches long. There were extensive and broad adhesions with the omentum and transverse colon, but they were quite easily separated. Considerable difficulty was experienced when it was necessary to enter the small pelvis, and reach the cervix, but this was overcome by tying the broad ligament with a double

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mass-ligature, and cutting across the mass with a thermo-cautery. There was also great difficulty in passing the chain-écraseur about the cervix, which Dr. Lange did previously to the application of the elastic ligature. The tumor was separated at a good distance from the ligature, preliminary to the final treatment of the stump. The bloodvessels within the chain-écraseur and outside of the elastic ligature were tied for the most part separately; some of them, however, were embraced in mass-ligatures; the loss of blood was comparatively insignificant. The peritoneal cavity was carefully cleansed; large flat sponges, dipped in a warm solution of salicylic acid, probably one to a thousand, covered the intestines during the entire operation, so that the hands did not come in contact with them. The wound was closed by at least seventy superficial and deep sutures. In order to form a thick abdominal wall in the middle line, the abdominal walls were brought together by eight lead-plate sutures, introduced at a considerable distance from the cut edges. The peritoneum was sewed up by a continuous catgut suture. Only a very small covering was applied, consisting of a fine layer of gauze, powdered with iodoform, and fixed in position with adhesive plaster. No spray was used, and the peritoneum was kept as dry as possible throughout the entire operation. From the first moment, the patient was treated as though she were suffering from peritonitis—that is, as soon as she rallied from the influence of ether, and the shock and collapse had passed away, cold was applied locally, and opium with quinine was administered by the rectum. Thus far, the progress of the case had been most satisfactory, and Dr. Lange believed that the patient was out of danger. Up to the sixth day she had a good pulse and temperature, but then, without apparent reason, the temperature rose to 104° F. and 105° F., and continued so for two days, while pulse was 70 to 80, and general condition very good. The temperature then subsided, and had not since become elevated. He thought that the elevation of temperature was possibly due to the iodoform, which had been powdered somewhat freely into the abdominal cavity; at least he knew of no other reason to which it could be ascribed. The urine was examined for iodoform, and showed a trace of iodine reaction.

DR. BRIDDON testified to the value of the flat sponges mentioned by Dr. Lange, which he had just employed in a case of double ovariotomy.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, May 3, 1883.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. WM. GOODELL related the history of

THREE STUBBORN CASES OF VESICO-VAGINAL FISTULÆ SUCCESSFULLY TREATED AFTER THE OPERATION WITHOUT THE USE OF THE CATHETER.

IN the first one, after a non-instrumental labor, lasting from a Tuesday evening, when the membranes broke, to a Friday night, it was found that her urine dribbled away immediately after the birth of the child. The fistula was situated so close to the cervix as to implicate it, and was quite large. Sixteen months after the accident, she was operated on by a distinguished surgeon, whose success in uro-genital fistulæ is very great. He turned the cervix into the bladder, and successfully closed up all the rent save a small portion of it. On this fistula he operated three times without any union whatever. In each instance, the urine dribbled away before the stitches were removed, and on two occasions an alarming hemorrhage came *per vaginam*. This information Dr. Goodell obtained from the surgeon himself.

Early in 1877, Dr. Goodell operated on her at the Hospital of the University of Pennsylvania, and put in Sims' self-retaining catheter. Eight sutures were needed to close the opening. The next day, a hemorrhage from the bladder, possibly menstrual, took place, and lasted several days. A fever also set in, which gave some alarm. When the stitches were removed, very little union was found to have taken place. Four months later, Dr. Goodell operated for the second time; and thinking that the vesical hemorrhage in the preceding operation was caused by the irritation of the self-retaining catheter, he treated her without one. The first twenty-four hours, her urine was drawn off every four hours, but afterwards she was allowed to pass it herself. No hemorrhage occurred, and perfect union took place.

The second case was also one of tedious labor, in which the forceps were not used. The fistula, at first, was a very large one, and was most skilfully closed by an excellent surgeon. A very small fistula, however, remained at each angle of the wound. These defied repeated operations on his part, and the case finally drifted into Dr. Goodell's hands. Twice the latter operated, at his private hospital, on these fistulæ, using the Goodman self-retaining catheter, but each time vesical and uterine tenesmus set in, and the result was a failure. Both fistulæ were then burned with the actual cautery, and one of them closed up; but the larger one resisted this treatment, as well as that by nitric acid. He then operated upon it, a month ago, for the third time, dispensing with the use of the catheter. The lady was instructed to pass her water before the desire was urgent. Neither vesical nor uterine tenesmus occurred. The stitches were left in for fourteen days, and union was complete.

The third case was the result of a short labor, and the cause of the fistula is obscure, as the lady was attended by a midwife, who pulled and tugged away at something after the birth of the child. The late Dr. H. Lenox Hodge had operated five times upon it, closing all but a small fistula which lay at the junction of the neck of the bladder with the urethra. Dr. Goodell closed this fistula at the Hospital of the University three weeks ago with eight stitches, and fearing that the catheter would interfere with union, dispensed wholly with it. The success was complete.

From these cases and from others which he had met with, Dr. Goodell was led to think that the catheter might, as a source of irritation, oftener be dispensed with very advantageously in the treatment of these fistulæ. He cited the practice of the late Dr. Simon, of Heidelberg, who was a very successful operator, and yet rarely resorted to its use. He also called attention to the fact that in these cases, and in the very great majority of the cases he had met with, the forceps had not been resorted to; showing that it was not the use of that instrument, but its neglect, or the delay in its use, that caused the mischief. In fact, he could not recall a case in which the lesion could be attributed to instrumental delivery. In the general experience of surgeons, very small vesico-vaginal fistulæ were harder to cure than moderate-sized ones. One reason for this is attributable to the fact that they usually are found in sites difficult to reach; and another that the operator is unwilling to enlarge the small opening by bold incisions, and fails from too small a denuded surface. Including the one previously referred to, he had closed two of them by means of the actual cautery.

DR. ALBERT H. SMITH remarked that these cases were of great interest. He had been taken by surprise when Dr. Simon announced his plan of treatment without the catheter, as he had been afraid of the

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strain on the stitches resulting from the accumulation of urine in the bladder. The presence of the self-retaining catheter must necessarily be a source of irritation and vesical tenesmus. The small holes in its bulb may become occluded by mucus or clot, and then it would act as a plug instead of a drain. In those cases in which the loss of substance in the vesico-vaginal septum has been very great, and the mucous surface of the bladder has been prolapsed into the vagina, the capacity of the bladder becomes small, and it must be emptied frequently, or the tension on the stitches becomes too great.

He had been gradually led to the conclusion that it would be better not to use the catheter after trachelorrhaphy and perineorrhaphy, unless called for by special circumstances. There are cases in which, in consequence of mental influence, or the effect of position, the patient cannot pass her water for weeks after labor in which no injury or long or undue pressure has occurred.

DR. R. P. HARRIS had recently operated for the restoration of a very long perineum; the last stitch was almost on a line with the orifice of the urethra, and the nurse was not able to introduce the catheter. He placed the patient in a sitting position to pass her water, and used a male catheter, tied on the tube of a Davidson syringe, to wash out the vagina.

DR. GOODELL is by no means a convert to treatment in this class of cases without the employment of the catheter. He has been too successful with it. He prefers the Goodman self-retaining instrument; but he always makes certain that it did not impinge on the wound. He has recognized the influence of mind and of position on the ability to pass water, and he thinks the use of ergot, so general before the third stage of labor, is one cause of the difficulty, as it is quite possible that it may cause a spasm of the urethral constricting fibres. He would like to dispense with both catheter and syringe after perineorrhaphy, as he has found injuries to the interior angle of the wound by the syringe and the fingers of the nurse while introducing the catheter. He has been in the habit of putting one stitch through the sound skin above the denuded surfaces to prevent this injury. In one case recently, the Goodman catheter slipped out twenty-four hours after perineorrhaphy, and he did not replace it, the wound healing. He always uses the catheter after trachelorrhaphy.

DR. WM. GOODELL also exhibited

TWO OVARIAN TUMORS, ONE OF THEM OF DOUBTFUL CHARACTER.

The one of doubtful character was removed from an unmarried woman, aged 27, who had not menstruated for over a year. It was first discovered nine years ago, but gave no trouble until two and a half years ago, when ascites set in. She had been tapped fourteen times when Dr. G. first saw her. She was very thin, pale, and so weak that she had to keep her bed. He recognized a hard tumor floating in the ascitic fluid, giving the feeling of ballottement, and diagnosticated it as either a solid ovarian tumor or a pedunculated fibroid.

On the 18th of last April, he removed it at the University Hospital, and found it to be a large, solid nodular tumor of the right ovary, with evidences of papillomatous degeneration. It had merely omental adhesions, and had a long, slender pedicle twisted many times on its axis. It was evident that the ascitic fluid was secreted directly from the tumor, and did not come from pressure on abdominal veins, or from irritation of the peritoneum.

The other cyst was removed also at the Hospital of the University, and on the same day, from a married woman, aged 26, who noticed it two months after her marriage, and about four months ago. The cyst was as large as the adult head, and was apparently attached to the womb, which was drawn upwards, and gave a measurement of four inches. It was operated on early, because it caused great vesical disturbance. The lower portion of the cyst was found enveloped in the broad ligament, close up to the womb, and had to be enucleated. It was this condition that gave the symptoms of uterine attachment. The cyst was that of the left ovary, but as the right ovary also presented tokens of degeneration, it was also removed. Both women recovered promptly, although the first one had, on the third day, a severe attack of mumps, which appears to be prevailing in this city as an epidemic. The ascitic fluid, which was straw-colored and syrupy, was not examined microscopically.

DR. M. O'HARA wished to know how Dr. Goodell could decide quickly between mumps and septic parotitis. He also spoke of the reflex action of the sexual organs as shown by the frequent occurrence of salivation during pregnancy. In a recent case of cancer of the rectum, the first symptom observed was excessive secretion of saliva.

DR. ALBERT H. SMITH remarked that mumps was a very interesting and very perplexing disease. He has seen cases of extension of the disease without retrocession, in adult women to mastitis and ovaritis, the swelling of the parotid gland being rapidly followed by the involvement of the sexual glands, the inflammation of the ovaries being accompanied by local peritonitis. A singular question was raised by the case of a young man, who went to Florida directly after marriage, and on the return trip by sea experienced a severe attack of mumps; it was complicated by orchitis, the inflammation being of high grade with great increase of temperature, and rapid pulse. No atrophy of the testicles has occurred, but the union has been sterile, and there is no known fault on the part of the wife. The semen has not been examined microscopically to ascertain the presence of spematozoids. The mastitis accompanying mumps has never in Dr. Smith's experience run into suppuration, but is accompanied by febrile action of a high grade. He has seen the ovary the original point of attack, the inflammation of the mammary gland being later. It is a marvel of pathology that this disease which affects in childhood the salivary glands only, should in adult life affect the sexual glands also. He has never seen a case of atrophy of the testicles following mumps.

DR. GOODELL recognized mumps in this case by his experience in two previous cases of mumps with severe symptoms, in adults. The pulse does not become so frequent as in septicæmia, and the eye remains clear and does not acquire that glassy appearance so indicative of a fatal issue. Dr. Goodell has never seen the involvement of the breast and ovary. A peculiar relation between the sexual organs and the glands of the neck is shown by a habit of the Roman matron, who measured the throat of her daughter before and after the night of her marriage to ascertain if the young husband had properly performed his marital duties, and if they had been properly received.

DR. ALBERT H. SMITH exhibited a set of hard-rubber

URETHRAL DILATORS.

The set consists of ten pieces with two handles, into which they can be screwed; the smallest bougie is twenty millimetres in circumference at the point, and twenty-eight millimetres at the largest part, the tapering in each bougie being eight millimetres, and a difference of six millimetres between each one and the largest circumference of the next in the scale. The largest one is eighty-two millimetres at the largest part

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and would be useful as a rectal dilator. He had been very much surprised at a statement made by Dr. Emmett at the last meeting of the Gynecological Society, in Boston, that dilatation of the urethra almost universally causes laceration, and is followed by permanent incontinence of urine. Dr. Smith has been in the habit of doing it frequently and fearlessly, without hesitation, not only in diseases of the urethra and bladder, but for exploratory purposes and for the removal of stone, but also as a step in the operation of anterior elytrorrhaphy; that by means of a finger in the bladder he may judge of the thickness of the walls in denuding the vaginal surface and place his sutures satisfactorily. He has never had incontinence of urine to last over twenty-four hours from this procedure.

DR. R. P. HARRIS has seen a large number of dilatations of the urethra without any bad effect. He would consider the method of Dr. Smith's better than any other plan, as it would make a perfectly even and uniform pressure on every portion of the urethra, with a very gradual action, free from the dangers incident to the opening of any form of instrument with blades.

DR. GOODELL was much obliged to Dr. Smith for exhibiting these instruments, and would get a set of them. He has entirely dropped Sims' dilators, and has for some time been using his little finger as the best dilator. He has not had any trouble from laceration or incontinence. In one case in which he resorted to dilatation and treatment to the mucous surface of the bladder as a cure for cystitis following labor, incontinence remained for a long time, but gradually disappeared. He knew of laceration and incontinence in two instances resulting from the use of the thumb as a dilator. Dilatation alone is a good treatment for many cases of irritable bladder.

DR. WM. H. PARISH narrated the case of a widow operated on by Dr. Goodell by dilatation for the relief of a very aggravated case of irritable bladder, the result of a gonorrhœa contracted years before from her husband, and which had been followed by cystitis. It was greatly relieved for several months, but not cured, by dilatation, but the relief was only temporary. The patient passed under the care of Dr. H. Lenox Hodge, who cauterized the urethra by means of Paquelin's cautery. In consequence of the illness and death of Dr. Hodge, she came again under the care of Dr. Parish, who commenced treatment by the injection of a solution of nitrate of silver, very strong at first but weaker on subsequent applications. The trouble has passed entirely away. There are two causes of fissure in dilatation, the first is too rapid expansion of the dilator; the second, changes in the mucous membrane, as from inflammatory action, particularly if caused by gonorrhœal poison.

DR. CHAS. H. THOMAS, had lately procured a set of nickel-steel instruments of about the same taper, and for the same purpose as those exhibited by Dr. Smith. The set consisted of sixteen pieces, there was one and a half mm. as the scale, and each dilator tapered five mm. from the point to the largest circumference of the shank, they ranged from twenty-five to fifty mm. He has tried in some cases, using every second instrument, making rises of three mm., but has found that the pain was increased by so doing. He has never known of a case of incontinence caused by dilatation, but has heard of such from the hands of two celebrated surgeons of this city. He thinks dilatation to the size of the finger a good treatment for the relief of irritable bladder in connection with irritation of the urethra and neck of the bladder. He related the history of two cases, in which this condition was complicated and made persistent by sphincterismus of the sphincter-ani muscle; dilatation of the urethræ in these cases, although a benefit, did not cure the trouble, but when to this was added dilatation of the sphincter ani, so that two fingers could be introduced, back to back, and a good dilatation secured, the cases were permanently cured.

DR. B. F. BAER has practised dilatation of the female urethra a number of times, and has had no instance of continued incontinence. He would, however, question the propriety of ever using a large-size dilator, except for the purpose of removing a calculus from the bladder, and even in that case, he thought it might be better to allow the stone, in the grasp of the forceps, to finish the dilatation than to use mechanical dilators to secure the full extent needed. In one instance, incontinence lasted several weeks after dilatation, but final recovery was complete, solutions of carbolic acid having been applied in the meantime for the cure of irritability of the bladder and urethra.

DR. PARISH would like to hear from Dr. Smith respecting the indications for probable success in treatment by dilatation of the urethra for the relief of irritation of the bladder.

DR. SMITH, in reply to Dr. Baer, remarked that no cavity of the body should ever be dilated beyond the actual necessities of the case; such a principle is unquestionable; but no form of dilator could be worse than the irregularities and roughness of a calculus, increased in size as it would be by the grasping forceps, which would present but two points of contact with the urethra, and render laceration quite probable. In a patient recently under his care, he had reason to suspect the existence of papillomatous growths on the mucous surface of the bladder. He dilated the urethra, using the largest size of Sims' dilators, and completing with a Molesworth dilator, expanded very slowly. He was able to evert the bladder through the urethra, and removed the vegetations by means of scissors. There was no laceration nor incontinence resulting from this procedure. The danger is in too great haste. In reply to Dr. Parrish, he said that dilatation is usually resorted to for exploratory purposes; removal of stone; growths of the vesical wall, or to ascertain the thickness of the wall of the bladder, and to introduce a finger into that viscus to guide the sutures in plastic operations upon the vagina. Irritability of the neck of the bladder can generally be relieved by dilatation, but it sometimes fails to cure. Dr. Smith prefers hard rubber to plated metal as the material for the dilators; it is lighter in weight, is not liable to corrosion, and is more easily kept clean. He thinks the multiplicity of instruments in Dr. Thomas' scale a disadvantage, and that time is lost and irritation caused by introducing several instruments in place of allowing one to remain a longer interval.

CONNECTICUT MEDICAL SOCIETY.

Ninety-second Annual Convention, held at Hartford, May 23 and 24, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE annual convention of this Society, one of the oldest medical organizations in the country, convened at Hartford, on May 23, in the Common Council Chamber, at 3 o'clock.

THE PRESIDENT, WM. G. BROWNSON, M.D., of New Canaan, addressed the Society briefly, in accordance with a by-law which makes it his duty to bring to the attention of the Fellows any subjects that he deems worthy of their attention and action. The business which is transacted the first day is in the hands of delegates from each of the eight county societies, called Fellows, and certain officers who act *ex-officio* as Fellows. Thus the Presidents of the county societies are Vice-Presidents of the State society. There is

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no separate membership, and in order to join the State society, one must be a member of some county medical association; this makes him a member of the State society. After he has once been elected as a Fellow, he retains all its privileges, except that of voting.

THE PRESIDENT'S ADDRESS.

After welcoming the members, and referring to the advances the Society had made, and the prominence it had attained, he made the following recommendations:

1st. That the number of Fellows should be based upon the number of taxable members, and perhaps the number allowed to act as delegates should depend upon the amount of the tax collected at the date of the meeting. While the membership has greatly increased, the number of delegates remains the same as it was fixed in 1870.

2d. As there is some question whether the Society's charter was not inadvertently repealed at the time of the revision of the charter of the Medical Institution of Yale College, he advised that a committee be appointed to determine this point, and offer such suggestions for a revision of the charter and by-laws as they might deem expedient.

3d. That all ex-presidents should be made Fellows, and constitute a Board of Councillors, who should have all matters of ethics and discipline under charge, should secure proper papers for the annual Convention, and perform such other duties as might be placed upon them.

4th. With reference to the Secretary, he advised that the office be made permanent, and a salary be paid, commencing with fifty dollars a year. The Treasurer also should receive compensation. In this connection he announced with regret that the present Secretary declined to continue longer in office, from the press of other duties which required more and more of his time and energies. He paid a glowing tribute to the fidelity of Dr. Chamberlain, and to the success of his administration of the affairs of the Society.

5th. He deprecated the indiscriminate use of new remedies, and suggested that the Society add to its standing committees, one on new remedies, who should report each year upon the claims of such as had proved to be of value and efficiency.

6th. The State Board of Health was commended and its advice concerning public funerals in death from such diseases as diphtheria, endorsed; and the advisability of a law on the subject mooted. The movement for a higher standard of medical education was referred to, and the action of the Yale Medical Department in this direction was commended.

In closing, he alluded to the discussions concerning the Code, which he considered as an instrument that had nearly outlived its usefulness. The action of the Legislature in refusing to repeal the law concerning compulsory vaccination of school-children, was commended, and the Society congratulated upon the new coroner system. The honored dead of the past year were fittingly alluded to, and the examples of their lives as worthy of imitation.

On motion of DR. WILE, it was voted that a committee be appointed upon each recommendation of the President; these committees to consist of three, and to be appointed by the President.

THE LEGAL STATUS OF THE SOCIETY.

DR. CHAMBERLAIN remarked that the subject of the legal status of the Society, and the revision proposed to be accomplished, was so important, that a larger and more representative committee should be appointed. This committee should be made up of one from each county. He moved a reconsideration of that part of the motion relating to this subject, which was voted. This committee, it was moved, should have power to act without reporting to the Society, and to secure a charter from the Legislature.

PROF. M. C. WHITE objected to any such action, stating that the charter of the Society was repealed through the negligence of the Society's committee; that this committee had been empowered to act without reporting to the Society, and such was the result. The Society and Medical Department of Yale College were incorporated together. The charter of the Medical School, as revised in 1879, was extremely unsatisfactory to himself and to others, especially in the power there granted for a dissolution of the relations between the Medical School and the Society by mutual consent, without any recourse to the Legislature. Had the committee been obliged to report to the Society, different action would have been taken.

DR. CHAMBERLAIN agreed with Prof. White that the committee should report to the Society, but thought the only mistake about the revision was in that section that repeals the charter. By request he read the offending section, which sweeps out of existence the whole of the incorporating act, instead of that part relating to the Medical School alone, then under revision. If the section was in the act when received from New Haven and submitted to the committee, it escaped notice, because an identical copy was in the old charter, and its transfer to the new was supposed to mean nothing more than a repeal of conflicting portions; no such section was read or discussed at the sessions of the joint committees. He stated that the rights of the Society were fully guarded, and in case the relations between the Society and the Medical School were dissolved, he did not think this Society would be left at a disadvantage.

There was considerable discussion on the need of a charter, and the relations of the Society to the School. It was expected that some definite action would be proposed for a separation of the School and Society, which, at present, grant degrees conjointly.

After various measures had been proposed, the acceptable portions were incorporated into the following resolution presented by Prof. Carmalt, which was adopted unanimously.

Resolved, That a committee consisting of one member from each county, to be selected by the Fellows from the respective counties, be appointed to take into consideration the legal status of this Society, with power to employ counsel, and to report at a special meeting of this Society, to be called by the President.

The following were appointed the Committee under the above resolution:

Drs. C. W. Chamberlain, W. H. Carmalt, F. N. Braman Geo. F. Lewis, H. W. Buel, E. A. Hill, G. W. Burke, and A. R. Goodrich.

THE REJECTION OF A VOLUNTARY ESSAY

having been complained off, the subject was referred to the Committee on County Resolves, who reported substantially as follows: That it was the duty of the Publication Committee to decide such questions, but that the merits of the paper should be the criterion, not its accord with the opinions of the Committee.

AN AMENDMENT TO THE BY-LAWS

assigning duties to the censors of County Societies was formally reported and adopted.

The following amendments for next year were proposed, and by rule lie over a year:

1. That no voluntary paper be published that has not been read before some County Society, and endorsed by it.

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2. Each County Society shall elect its member of the Nominating Committee, and also an alternate.

3. That every resolution shall be offered in writing, without any erasures or interlineations.

4. That all remarks made in relation to any subject shall be written out either before or after they are made, and that the Secretary be authorized to procure suitable means for carrying this rule into effect.

LEGISLATION ON THE PRESIDENT'S RECOMMENDATIONS.

The following propositions were made in accordance with the recommendations of the President:

That there be a board of councillors established, composed of ex-presidents, who shall be permanent Fellows.

That the Secretary shall be a permanent officer, with a salary of fifty dollars.

That the number of elective Fellows shall be increased to fifty-five.

These propositions will be acted upon next year.

PUBLICATION OF FORMULÆ OF PROPRIETARY MEDICINES.

Upon motion of DR. CHAMBERLAIN, it was voted that the Secretary memoralize the Legislature on behalf of this Society, for the passage of a law requiring that no patent or proprietary remedy shall be sold in this State, unless the formula of its construction be plainly printed on the label. That there shall be a heavy fine for evasion of this law, and if analysis shows any considerable difference from the alleged formula.

The Nominating Committee reported the following, who were duly elected

OFFICERS FOR THE ENSUING YEAR:

President.—ELISHA B. NYE, M.D., of Middletown,

Vice-President.—B. N. COMINGS, M.D., of New Britain.

Secretary.—DR. S. B. ST. JOHN, of Hartford.

Treasurer.—DR. E. P. SWASEY, of New Britain.

Committee on Matters of Professional Interest.—DRS. W. C. WILE, J. H. GRANNIS, and E. C. KINNEY.

NO DELEGATES TO THE NEW YORK STATE MEDICAL SOCIETY.

When the nomination of delegates to the New York State Medical Society was in order, it was moved to lay the nominations on the table. After some debate, which was allowed rather as a matter of explanation, such action was taken, on account of the present relations of the New York State Society to the American Medical Association.

THE ANNUAL TAX.

The usual tax of two dollars, payable on and after June 1st, was assessed, and it was voted to publish seven hundred copies of the proceedings.

THE TREASURER'S REPORT

was then presented, and after comparing it with the accompanying vouchers, it was declared correct.

The Treasurer, Dr. Swasey, reported that the increase of receipts over last year was $50, decrease of expenses $75, balance in the treasury $640.

There were three counties that showed no arrears, and none that owed on any except the tax of last year. There was about $100 still due, half of which was from Fairfield County. The satisfactory condition of the treasury was largely due to the efficiency and energy of Dr. W. H. Holmes, of Waterbury, who had collected all the arrears of taxes in New Haven County, so that, although, the amount left uncollected is larger than last year; the general result is as favorable.

THE COMMITTEE ON HONORARY MEMBERS

reported favorably on the name of Dr. John S. Billings, Surgeon U. S. A., who was unanimously elected. They reported the names of Dr. James E. Reeve, West Virginia, and Prof. T. A. Emmett, of New York, for election next year.

THE LIBRARY AND MUSEUM OF THE SURGEON-GENERAL'S OFFICE.

The following preamble and resolutions were adopted on motion of DR. CHAMBERLAIN:

Whereas, The Army Medical Museum and Library of the Surgeon-General's Office in Washington are recognized by the profession as the most valuable collections of their kind in the world, and the medical profession, not only in this State, but everywhere, is interested in their preservation, and

Whereas, We have observed with regret that they are still liable to destruction and irreparable damage by reason of the insecurity of the building in which they are placed, which is also not suited for any such purpose. Therefore be it

Resolved, That, in the opinion of this Society, the importance of these collections demands from Congress such action as will secure the safety of the books and specimens, render them easy of access, and amply provide for the future wants and uses of the Museum and Library; that an appropriation of sufficient amount to build an adequate fire-proof building, both for the present absolute necessities and for future developments should be made.

Resolved, That this Society would regret to see any separation of these two collections, or any change in the present management, as detrimental to both and an injury to the cause of medical education throughout the entire land.

Resolved, That a sufficient annual appropriation should be made, to allow the purchase of all new medical books and journals, wherever published, and that, in doing this Congress promotes the best interests of the medical profession in this country. That the appropriation should be a liberal one, commensurate with the interests involved, and bear a just relation to the claims of the profession, which are too often ignored.

Resolved, That this Society is especially interested in the *Index Catalogue* of the Library of the Surgeon-General's Office, a work of inestimable value, which should receive substantial aid from Congress, and be pushed to a speedy conclusion.

Resolved, That a copy of these resolutions be sent to every member of Congress from this State, and the members be requested to use their personal influence with those members of Congress whose acquaintance they may have.

It was voted to endorse in general terms the plan of a

MEDICAL REGISTER OF NEW ENGLAND,

as proposed by the Massachusetts Medical Society, but to refer the details to the County Societies.

The Committee on Revision of the

LAW RELATING TO CORONERS

reported that, while nothing had been done collectively, all the members had worked to secure the results attained, of which the Society might well feel proud.

DR. CHAMBERLAIN spoke of the work done by the State Board of Health, and by Drs. Porter and Cleveland, both of whom had labored very efficiently, and, learning the merits and deficiencies in the Massachusetts law by personal study on the field of its operation, had enabled them to improve upon that law in several practical points.

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The Committee on

THE CODE OF ETHICS

reported that if any changes were to be made, they should originate in the American Medical Association, and not from a State society.

The report was accepted, and the Committee discharged.

The convention then adjourned, for a reception at the United States Hotel, given by the Hartford City Medical Society, which was largely attended.

MAY 24TH.—SECOND DAY'S SESSION.

THE SECRETARY'S REPORT

stated that the history of the year had been one of uninterrupted prosperity; the condition of the Society had never been more satisfactory. The losses by death had been unusually heavy, both in numbers and men. The new members number thirty-one. The Society now numbers four hundred and sixty. In closing, he congratulated the Society upon its prosperity, the zeal of its members, and the harmony that so generally prevailed.

RECOGNITION OF THE SECRETARY'S SERVICES.

PROF. WHITE moved that the thanks of the Society be tendered to Dr. Chamberlain for his long, faithful, and arduous services for eight years as Secretary.

DR. WILE moved, as a substitute, that a committee be appointed to draft suitable resolutions and have them engrossed and presented to the retiring Secretary, as a slight expression of our recognition of the value of his services. This was passed unanimously, and the President appointed Drs. W. C. Wile, M. C. Hazen, and Geo. L. Porter.

THE ANNUAL ORATION

was then read by the PRESIDENT, subject—*The Country Doctor*, in which he presented a graphic pen-picture, in poetical form, of the checkered life of the country doctor.

Upon motion of DR. PORTER, the thanks of the Convention were voted the President for his interesting address, and a copy requested for publication.

The President then presented to the Convention the following

DELEGATES FROM OTHER STATES,

who addressed the Society briefly, and expressed the greetings and kind wishes of their respective societies:

Dr. G. J. Townsend, from *Massachusetts;* Drs. A. G. Browning and Charles O'Leary, from *Rhode Island.*

Dr. St. John read a telegram from Dr. D. C. English, of New Brunswick, expressing the salutations of the Medical Society of New Jersey, and regretting that his State was not represented.

Dr. T. D. Crothers presented credentials from the American Association for the cure of Inebriates, and offered a paper on *Inebriate Automatism*, which was referred to the Publication Committee.

Dr. M. H. Henry, of New York, and Dr. G. Sawyer, of Bedford, New York, were invited to be

GUESTS OF THE CONVENTION.

DR. HENRY offered a paper on

THE TREATMENT OF VARICOCELE,

describing its pathological anatomy, the dangers of the old methods of operation, and described the operation which goes by his name, exhibiting his clamp and describing its use. He stated that he had statistics of one hundred and fifty successful cases; not selected, but consecutive cases; no failures. The result also was more satisfactory and permanent than that from any other method.

DR. CHAMBERLAIN briefly described two cases of Henry's operation, performed by Dr. Geo. C. Jarvis, in which he had assisted.

PROF. M. C. WHITE then exhibited

A MICRO-SPECTROSCOPE

of his own invention, and, after a condensed analysis of micro-spectroscopy, described the merits peculiar to his instrument. It consists in the introduction of an eye-piece micrometer in the micro-spectroscope, placing above the spectroscope a non-magnifying telescope, the eye-piece and field-piece of the same power.

DR. W. C. WILE reported an unsuccessful case of

EXTIRPATION OF THE UTERUS,

performed as a forlorn hope at the solicitation of the patient, who lived five days after; the specimen was shown. The *status* of the operation was not settled, he stated, but in selected cases he considered it a justifiable operation, and, also, where it promised relief from extreme agony, as in the case upon which he operated.

ILIAC ABSCESS MISTAKEN FOR SPINAL MYELITIS.

He also reported a case of a man, aged 45, one leg contracted from an arrested hip-joint disease when a boy, who had been treated by specialists for three months for spinal myelitis, the typical symptoms of which he then presented. Dr. Wile discovered an abscess in the iliac region, which the patient would not let him open. When it opened it discharged profuse quantities of rather sanious pus. As he suffered excruciating pains afterward, it was determined to enlarge the opening and remove the dead bone suspected to be present. When the joint was cut down upon, it was found that the head of the bone was absorbed. Several inches were exsected. Upon tracing the abscess it was found to burrow up to the lower angle of the scapula. The patient made a good recovery.

DR. W. C. BURKE, JR., reported a successful case of

EXTIRPATION OF THE UTERUS,

performed some months ago. He exhibited an instrument, cleverly made out of copper wire, by the aid of which he placed and tied his stitches without making undue traction upon the broad ligament; dragging down the parts to get at them, he regarded as one of the principal sources of danger.

DR. GEO. L. PORTER related a case of

EXTRA-UTERINE PREGNANCY.

The body of the fœtus was in the Fallopian tube, the short circumference of the tumor in the tube was twelve inches, the long twenty-two inches. The head extended out of the Fallopian tube, the fimbriated extremity of which encircled the neck. The woman died of asthenia.

PROF. WHITE related the following

UNIQUE CASE OF STONE:

At a post-mortem recently, he found twenty-two calculi in the bladder, of varying sizes, they lay mostly in a cul-de-sac behind a very much enlarged prostate. Outside the bladder in the cellular tissue were fifteen concretions, some of them the size of a pea. One examined carefully was found to be made up of phosphate and carbonate of lime.

DR. GEORGE W. PARMELE, of Hartford, read a paper on

DENTISTRY AND THE TREATMENT OF TEETH,

contrasting the modern scientific mode of preservation with the old remedy in *all* cases—the forceps. He explained the relations between the teeth and digestive and nervous troubles, diarrhœa and dyspepsia, and

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showed the relation between imperfect and diseased teeth to many conditions and cases of illness, to which the teeth were not suspected of bearing the least causative connection; and that many other troubles besides neuralgia, the only one generally recognized, are due to poor teeth.

THE EARLY RECORDS OF THE SOCIETY.

DR. G. W. RUSSELL spoke of the early history of the Society, and moved that the Secretary condense the records and transactions of the past twenty-five years, and have them printed. He himself would be responsible for one hundred dollars of the expense. The motion was adopted.

A resolution was also passed instructing the Secretary to write to the county societies and ascertain whether they would bear a share of the expense of printing a revised account of the records and papers of the Society from 1793 to 1830.

DR. W. H. HOLMES read an essay on

ASPIRATION OF THE CHEST IN PLEURISY,

with illustrative cases. The advantages of the operation, and the results of delay or neglect, were considered.

DR. F. N. BRAMAN then read a paper on

COMPLICATIONS OF LABOR.

He discussed version in hour-glass contractions. He advocated the use of a fillet around the body to assist in rotation, and enable the operator to have entire control of the child.

PROF. BECKWITH stated that where he lost cases of complicated labor from peritonitis, he now always considered that some of the tissues of the mother had been injured. The fillet around the body, as described by Dr. Braman, was certainly original; so far as his reading extended at least, he did not recall having ever before seen a description of any such use. But the fillet around the shoulders, as described by Barnes in his *Obstetric Operations*, was a quite well-known and often practised procedure. He considered that all that could be accomplished by the fillet around the body could be equally as well secured by the fillet around the shoulders, as the child's tissues would not sustain a pressure above a certain amount; any greater force was no gain.

DR. BRAMAN stated that the object was not to obtain more force, but to obtain control of the body of the child completely, which could be done by no other method.

DR. A. BEARDSLEY then gave a report of his

FIFTY YEARS' EXPERIENCE IN TREATING INTERMITTENT FEVER.

Eschewing any discussion of theories of causation, or reasons for its reappearance, he at once presented his method of treatment without quinine. Briefly, it is as follows: First, brisk alterative purgatives, aloes, blue-mass, and capsicum in equal parts, made into pill-form, or calomel in place of the blue-mass. An alterative purgative was to be taken at the outset, and repeated as the nature of the case demands. This was to be followed by an aromatic bitter, and perhaps an alkali with it, or in combination with boneset tea, drunk very freely, was an element in the cure not to be overlooked. He stated that this method had been very satisfactory in his and others hands, and was often successful where quinine had utterly failed, and that, too, where it had been pushed; indeed, as far as twenty-grain doses three times a day, or even oftener.

The remaining papers and the report of the Committee on Examination at Yale Medical Department were ordered read by title, and referred for publication.

The Society then adjourned for

THE ANNUAL DINNER

at the United States Hotel, after one of the most successful meetings held for many years, both in numbers, enthusiasm, and value of literary exercises.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, April 27th.

(Specially reported for THE MEDICAL NEWS.)

THE PRESIDENT, R. A. KENNEDY, M.D., IN THE CHAIR.

CASE FOR LOCALIZATION.

DR. OSLER presented a patient with the following history: Francis ——, aged 41, married fifteen years. Not known to have had syphilis, though he lost one child shortly after birth with a skin eruption. Has enjoyed good health, with exception of present trouble. For six years he has had epileptic fits; at first at rare intervals—one in three months—but now one every fortnight. Liable to have them at any time if much excited. They are, his wife says, confined to the right side, towards which, also, he tends to fall. Not known whether they begin in hand or foot, as he has not had a fit since under observation; always loses consciousness. Nearly two years ago he began to have trouble in the right leg, jerkings and stiffness, which have steadily increased. The right arm was also weak, and for the past five months the speech has been affected. His memory is not so good as it was, and at times he is irascible. He has had two injuries to the head; the first when a lad of seven or eight, which has left a long scar on the right side, high on the parietal bone. There is no adhesion of the skin and no depression. The other was received by the fall of a scantling, seventeen years ago, and is a flat scar a little behind bregma on left parietal bone. It is not depressed, and the skin not adherent. At present, nutrition of muscles good; he walks with difficulty, owing to stiffness of right leg, in which the spastic gait is well marked. Reflexes greatly increased in the leg. Knee-cap somewhat exaggerated also in the left. Right arm does not appear much affected, but he says it feels weak. Grip is good; dynamometer shows it to be a little weaker than the left. Slight paralysis of lower facial muscles; tongue deviates strongly to the right, uvula drawn towards the left. Speaks with hesitancy, and is often at a loss for a word. No impairment of sensation. No optic neuritis or retinitis. The patient's head was shaved and Broca's lines drawn, in order to define the exact position of the old injury on the left side. It is just behind the bregma, and would correspond on the cortex of the brain to the hinder part of the superior frontal convolution.

The symptoms point to a lesion of the motor area on the left hemisphere, situated about the upper end of the fissure of Rolando, along the ascending frontal and extending to the inferior frontal sinus. The character of the convulsive seizures, unilateral, the monocrural rigidity, the dissociation of the paresis, leg, and face, and gradual extension, point to a cortical lesion; but whether connected in any way with the old injury is somewhat doubtful. The question of trephining in such a case naturally suggests itself, and may come after further study of the case.

DR. RODDICK stated that he had known the patient for some time, and he had suggested the advisability of trephining at the site of the old injury but had been overruled by his colleagues.

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CHYLURIA, NOT PARASITIC; AUTOPSY.

DR. MCCONNELL read the report of the case. A woman, aged 33, native of the Province; married ten years, two children. Eleven years ago she noticed that the urine was milky. Had been healthy up to that time, but ever since had not been so strong. The white appearance of the urine has persisted with occasional periods of intermission, two of which were while she was pregnant. Came under observation on October 27th. Was pale, anæmic, moderately emaciated. Appetite good, is constantly hungry, and eats five or six meals a day; sleeps well; bowels very constipated. Has to make water very frequently, nearly every half hour, and it is of the color of milk. Sometimes very painful to pass from the presence of thick, clotted portions. A sample passed was quite fluid when fresh, but in a few minutes a large part of it curdled. Examination of abdominal organs negative. In chest, râles at apices of lungs. On three occasions the blood was carefully examined by Dr. Osler and myself, a number of slides at a time, and the blood taken after midnight, but no filarian embryos were ever discovered. The quantity of urine passed was estimated for several days, and ranged from six to eight quarts; often the clots were blood-stained. Microscopically, it presented fatty molecules, like the molecular base of the chyle, a few blood-cells and leucocytes. Repeated examinations failed to detect any parasites. The condition of the patient grew gradually worse through the winter; the cough became more distressing, and the digestion much impaired. Death took place on the 5th of March. For three days before dissolution, the urine was bloody and not so abundant. The *post-mortem* was held on the 18th inst., the body, which had been in vault of the cemetery, was in a good state of preservation. A careful dissection was first made of the thoracic duct and receptaculum, but, as the specimen shows, it appeared perfectly normal, perhaps a little small, but pervious throughout, and contained a bloody lymph. No dilated lymph vessels about the kidneys, or any special connection between venal and abdominal lymphatics. The mesenteric and retro-peritoneal glands were a little enlarged and firm, and, on section, presented opaque areas of fatty degeneration. No caseous or calcareous glands. Lacteals not distended. Kidneys were of average size, capsules detached easily, substance a little blood-stained, but looking very natural. Ureters normal. Bladder contained six or eight ounces of bloody fluid, which had clotted. Mucosa normal. Inguinal and pelvic lymph glands not enlarged. Tubercular cavities at apices of lungs, and a few ulcers in the ilium. The lymph glands, retro-peritoneal tissues, mesentery, and kidneys were subjected to prolonged microscopical examination without producing a trace of anything parasitic, or, indeed, of anything which threw any light on the nature of the affection.

DR. RODDICK asked if it were not possible that in the course of the disease the filaria might disappear?

DR. OSLER thought it not probable, without leaving some trace of the presence of the adult worms which live in and about the lymph glands in pelvic and peritoneal tissues. The value of this case was considerable, as it showed that we should not regard, as some recent writers do, chyluria and the filarian disease as identical.

INFLAMED UMBILICAL HERNIA.

DR. F. W. CAMPBELL read the notes of the case: Stout woman, aged 64, had had an irreducible umbilical hernia for fifteen years. Had been seen four years ago, with a painful attack in the hernia which subsided in a few days. On the morning of April 9th, was sent for, and found her suffering great pain in the sac. The pad had got off, and without waiting to replace it, she had jumped out of bed, and was at once seized with severe pain. The hernia has been getting a little larger of late, and the pad was too small. It was at once reduced to the usual size without difficulty, but the pain continued. Liq. opii sed. was given. An enema brought away many scybala. In the afternoon, she was not so well, and vomiting set in. On the 10th she was easier, and on the 11th pain was well kept down, but the vomiting was excessive. An injection brought away a large fecal stool. 12th, had a restless night; pain has returned, but not so severe.

Was seen by Drs. Howard and Fenwick, but it was decided that the symptoms scarcely justified an operation. Through the 13th and 14th, she kept about the same; the vomiting not so frequent; and on the evening of the 14th she seemed very much better. Early in the morning of the 15th, she got much worse, became cold, sank rapidly, and died in a few hours. The autopsy showed a thin-walled umbilical sac, not inflamed. In it were two coils of intestine; one, about thirteen inches in length, was dark-colored, deeply congested, and inflamed; the other, nine or ten inches in length, was natural looking, though a little swollen. Two fingers could be passed into the ring; there was no strangulation. There was no adhesion of the bowel to the sac. The inflamed portion of the bowel presented two flat bands of slightly thickened peritoneal tissue, where it has been probably for years in contact with the ring. The inflammation had extended along the adjacent coils in the abdomen for a few inches. When slit open, mucosa intensely inflamed, of a deep, livid-red color, and covered with closely adherent flakes of croupous exudation. Heart fatty. No other changes of note.

A difference of opinion had existed regarding the existence of strangulation in this case, and the propriety of operating. From the post-mortem appearance, it did not seem probable that nipping of the bowel had occurred, as the ring was large, and a healthy coil was in the sac. It may have been simply the result of a primary inflammation of the hernial coil, which had evidently been in the sac for years, as it was dark with pigment. One of the most inexplicable features of the case was the the sudden heart failure; but she had been taking very little nourishment, and the vomiting had reduced her strength very much.

CANCER OF THE STOMACH.

DR. WOOD presented the specimen and narrated the case. A woman, aged 55, had suffered for a year or more with dyspeptic symptoms, and two months ago had vomited a small amount of blood; had lost flesh, but was not cachectic. No tumor of abdomen could be made out, but cancer of the stomach was suspected. The details of the last week of her illness are as follows: On April 14th, 15th, and 16th, she had a good deal of nausea and vomiting; on the 17th, she went to bed and I saw her for the first time in several weeks. There was vomiting and considerable epigastric pain; pulse about 90. On the 18th, she was easier. 19th, much worse; she had fainted in the night; pulse weak, 115; face pale, feet cold, vomiting frequent. In the evening the temperature was 101°, pulse 120; the pain in abdomen was more diffuse, and there was considerable distention. On the 20th, condition did not improve, though, under opium, the distress was not so great. On the 21st, prostration more marked, and the next day the vomiting was distinctly fecal and frequent. Death on the 23d.

At the autopsy, the small intestine from an inch or two below the duodenum to within two inches of the valve, was dark in color, distended, and covered in places with a thin sheeting of lymph. Several spots in

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the ileum looked almost gangrenous, and here and there extravasations had taken place. The coats were infiltrated, the mucosa soft, and there were three spots (ulcers) from which the membrane had disappeared.

The stomach, as shown by the specimen, presented a large open cancer, involving the cardiac end, and completely encircling the organ. Several loose sloughs adhered to the surface, but over a great part of its extent the muscle fibres were bare. There was thickening of the peritoneal surface and a few secondary nodules. In looking for the cause of the condition of the bowel, the vessels were carefully examined, and the superior mesenteric artery found to be plugged.

(To be continued.)

NEWS ITEMS.

BALTIMORE.

(*From our Special Correspondent.*)

THE JOHNS HOPKINS MEDICAL SCHOOL.—It is understood that President Gilman will shortly visit Europe in the interest of the Medical School of the University, which the trustees desire to establish as soon as practicable.

THE UNIVERSITY OF MARYLAND.—Prof. W. E. A. Aikin has resigned the Chair of Chemistry in the University of Maryland. Prof. Aikin has filled this position since 1837, a period of forty-six years. He will remain in the faculty as Emeritus Professor of Chemistry. His successor has not yet been appointed.

THE NEW YORK COUNTY MEDICAL SOCIETY AND THE NEW CODE.—The regular stated meeting of the New York County Medical Society was held last Monday evening. Dr. Piffard gave notice that at the next annual meeting of the Society, which occurs in October, he would move the adoption of the following amendment to the by-laws of the Society:

No member of this Society shall assume any sectarian designation indicating that his practice is based on any special doctrine, dogma, or specified method of treatment.

DR. PIFFARD also moved the adoption of the following amendments to the by-laws, which he said he offered in order to keep the Society in harmony, as it was obliged by law to be, with the State Society:

1. The members of this Society shall be governed by the Code of Ethics adopted by the Medical Society of the State of New York February 6, 1882.

2. No person shall be eligible for membership in this Society who is a member of a county society not entitled to representation in the Medical Society of the State of New York.

The amendments were adopted.

MASSACHUSETTS MEDICAL SOCIETY.—The one hundred and second annual meeting of this Society will be held at the Institute of Technology in Boston on June 12th and 13th, under the presidency of Dr. Alfred Hosmer, of Watertown.

The following papers are on the programme:

A Contribution to the Study of the Tubercle Bacillus, by H. C. Ernst, M.D., of Jamaica Plain.

The Use and Abuse of Ergot, by G. L. Woods, M.D., of Springfield; and another paper on the same subject by W. A. Dunn, M.D., of Boston.

Glykogen, by J. W. Warner, M.D., of Boston.

Phlyctenular Disease of the Eyes, by O. F. Wadsworth, M.D., of Boston.

Minor Injuries of the Spinal Cord, by B. H. Hartwell, M.D., of Ayer.

Plumbing Appliances, by T. M. Clark, A.B.

Recent Changes in the Method of Medical Instruction, by E. N. Whittier, M.D., of Boston.

Neurasthenia: its Causes and its Home Treatment, by J. S, Greene, M.D., of Dorchester.

The Artificial Feeding of Infants, by J. W. Spooner, M.D., of Hingham.

The Early Symptoms of General Paralysis of the Insane, by W. B. Goldsmith, M.D., of Danvers.

The Annual Discourse will be delivered on the 13th inst. by Amos H. Johnson, M.D., of Salem.

During the week of the meeting, there will be a sanitary exhibit at the Institute of Technology, illustrating the proper and faulty methods of plumbing, drainage, ventilation, etc.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending May 19, 1883, indicate that measles has increased, and that erysipelas has decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending May 19, and since, at 17 places; scarlet fever, at 18 places; and measles, at 36 places. One case of smallpox was reported at Detroit, May 19.

OBITUARY RECORD.—The death of DR. MICHEL, Professor of Clinical Surgery, and one of the most distinguished members of the *Faculté* of Nancy, is announced.

—— A cable dispatch from Berne, on May 28, announces the death of the eminent German physiologist, PROFESSOR GABRIEL GUSTAV VALENTIN.

Professor Valentin was born at Breslau, Prussian Silesia, on July 8, 1810, of Jewish parentage. He studied medicine at the Breslau University, taking his degree in 1832. He practised medicine a few years, but in 1836 he became Professor of Physiology at the University of Berne. He published many medical works, and a number of monographs and minor essays.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MAY 21 TO MAY 28, 1883.

CAMPBELL, JOHN, *Lieutenant-Colonel and Surgeon, Medical Director Department of the South.*—Granted leave of absence for one month, on surgeon's certificate of disability.—*Par. 3, S. O. 50, Department of the South, May* 21, 1883.

SPENCER, WM. G., *Captain and Assistant Surgeon.*—Assigned to duty at Fort Hamilton, N. Y. H.—*Par. 2, S. O. 83, Department of the East, May* 14, 1883.

GORGAS, W. C., *First Lieutenant and Assistant Surgeon.*—Granted leave of absence for one month—*Par. 5, S. O. 51, Department of Texas, May* 17, 1883.

HOPKINS, WM. E., *First Lieutenant and Assistant Surgeon.*—Assigned to temporary duty at Whipple Barracks, A. T.—*Par. 2, S. O. 44, Department of Arizona, May* 14, 1883.

MCCREERY, GEORGE, *First Lieutenant and Assistant Surgeon.* To report for duty to the commanding officer of troops in the field near San Bernardino Springs, A. T.—*Par. 1, S. O. 44, Department of Arizona, May* 14, 1883.

CORRIGENDUM.

ON page 607 of last issue for DR. HOLLAND, *read* DR. EDGAR HOLDEN, of Newark, N. J.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, JUNE 9, 1883. NO. 23.

AMERICAN MEDICAL ASSOCIATION.

THIRTY-FOURTH ANNUAL MEETING, CLEVELAND, 1883.

THE PRESIDENT'S ADDRESS.

Delivered June 5, 1883.

BY JOHN L. ATLEE, M.D., LL.D.,
OF LANCASTER, PENNSYLVANIA.

GENTLEMEN OF THE AMERICAN MEDICAL ASSOCIATION: Permit me to express my feelings of gratitude for the unexpected honor conferred upon me at the last meeting of the Association, and to cherish the hope that in fulfilling the duties of this responsible position I may be sustained by your cordial coöperation.

We meet here to engage earnestly in furthering the interests and objects of the medical profession. We have come together from all parts of our broad country, charged with these great responsibilities. It is fitting to express here deep regret at the absence from our councils of delegates from the Medical Society of the State of New York. Let us hope that this absence may be only temporary, and that at the next meeting every State may be represented.

As specialties are so much in favor at the present time, I have thought it well, though far from favoring them on ordinary occasions, to bring prominently forward, in my address to-day, my own rare specialty, namely, the having been a graduate of sixty-three years' standing. Instead, therefore, of calling your attention to the more strictly scientific subjects that are so generally considered upon such an occasion as this, it has occurred to me that some reminiscences of my early medical life might not be wholly unacceptable, or devoid of interest and instruction.

REMINISCENCES OF EARLY MEDICAL LIFE.

When I began my medical studies, in 1815, there were but few medical colleges in the country—the medical department of the University of Pennsylvania, the College of Physicians and Surgeons of New York, and the colleges at Baltimore, Harvard, New Haven, and Lexington, Ky. The University of Pennsylvania was the leading institution, to which students from all parts of the country came. The facilities for clinical instruction at the University were confined to the Pennsylvania Hospital and the Philadelphia Almshouse; but of these lectures and the distinguished clinical teachers I shall speak again.

DR. CASPAR WISTAR.

Having had no opportunities for studying practical anatomy before matriculation at the University of Pennsylvania, I devoted myself more particularly to that branch in my first course of lectures, 1817–18. The chair was then filled by Dr. Caspar Wistar, one of the most able and accomplished teachers of anatomy which this country has produced. His amiable deportment and kind treatment of students made an impression upon me which I shall never forget, and after the lapse of more than sixty-five years the thought of him kindles in my breast emotions of genuine pleasure. As I remember him, he was of medium stature, apparently about sixty years of age, and so impressive was his teaching of anatomy up to the time of his death, which occurred very suddenly, in January, 1818, that his words remain with me yet. He was certainly a man of great personal magnetism, extremely courteous in his manners, and gentle in disposition; he was always ready to converse with the students and help them in their difficulties. It is no wonder that he was greatly beloved by the students. The announcement of his sudden death from disease of the heart, on the night after he delivered his last lecture, produced a shock among the students that I shall never forget.

Just here, I may appropriately allude to the foundation of a social institution, long known in Philadelphia as "the Wistar Parties." Dr. Wistar had been in the habit of inviting to his house, on Saturday evening, men of learning and distinction, both citizens and strangers. The ability and social qualities of the professors of the University of Pennsylvania and of the eminent medical men of Philadelphia, caused always the presence of a large infusion of medical science in the composition of his parties. After his death, these gatherings were revived and continued by his friends, and they were still known as "Wistar-parties" in honor of their founder. In this way originated the celebrated social gatherings, which occupied so important a share in the social annals of Philadelphia. I remember my gratification when young at meeting some distinguished gentlemen from abroad, and many no less distinguished from our own country.

JOHN SYNG DORSEY.

The course of lectures on anatomy, interrupted by the death of Dr. Wistar, was subsequently finished by Dr. John Syng Dorsey, a favorite nephew of Dr. Physick. He completed the course with credit, and was subsequently elected to fill that chair. Unfortunately, he also died after a very short illness, after delivering his introductory lecture, within a week after the beginning of the term. It was a great loss to the University, and a very severe blow to Dr. Physick, one from which he never recovered. At this period there was no American work on anatomy; but about this time Dr. Wistar's *Anatomy* was published, and adopted as a text-book. It was received with great favor, even with enthusiasm, by the students. The assistants to the Professor of Anatomy at this period were Drs. Wm. E. Horner and Hugh L. Hodge, afterwards highly distinguished in their respective branches, anatomy and midwifery.

JOHN REDMOND COXE.

Dr. John Redmond Coxe was the Professor of Chemistry in the winter of 1817–18, a grandson of Dr. John Redman, one of the leading physicians of Philadelphia in his day, and first President of the College of Physicians. Dr. Coxe had the reputation of being one of the most diligent students in Philadelphia. He was very careful in his experiments, and in lecturing was very punctual in filling the whole of the hour allotted to him.

The Chair of Midwifery, during my first course, was filled by Dr. Thomas C. James, a very modest and agreeable gentleman of Quaker origin. He had such a sense of delicacy that he could not bring himself to lecture on the female organs of generation, but entrusted this part of his course to Dr. Horner. Although a graduate of the University of Pennsylvania, he sub-

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sequently became a pupil of Dr. Denman, of London, whose work on *Midwifery*, together with that of Burns, and Dr. Dewees' translation of Baudelocque, constituted the principal works on that subject. Dr. James, after Denman, was a strong advocate for the short forceps.

NATHANIEL CHAPMAN.

Dr. Nathaniel Chapman, at this time, and for many years afterwards, filled the Chair of the Institutes and Practice of Medicine. He was a most eloquent and impressive lecturer, and the idol and tried friend and benefactor of the student. He was, moreover, a man of very marked ability, eloquence, and great social qualities. Having to teach the Institutes, as well as the Practice of Medicine, it required two courses of lectures to complete the subject. The physiology of that day was very different from that of the present. The microscope had then hardly begun to be applied to the study of anatomy, and so little did Dr. Chapman appreciate it, that it was a standing joke with him to quote old Leuwenhœck as having discovered with his microscope "twenty thousand devils playing upon the point of a needle," thus foreshadowing some of the most remarkable discoveries of the present day, especially disease germs. Prof. Chapman was thoroughly posted in the departments which he taught, at that time, although they have advanced wonderfully since his day. He was a man of very imposing presence, rather above the medium height, always neat in his dress, perfectly well-bred, and always obliging and polite to the students. I believe that he did more for the advancement of medicine in his day than any other person with whom I was acquainted. He established a school, called Chapman's Institute, for the benefit of his private students, of whom he always had thirty or forty, and other students who chose to attend. The building was in the rear of his house, with a private entrance, and he employed, as teachers of his classes, gentlemen who afterwards became eminent professors at the University and at the Jefferson Medical College, among whom may be mentioned Prof. William P. Dewees, Hugh L. Hodge, and John K. Mitchell.

PHILIP SYNG PHYSICK.

Last but not least among the faculty of that day was Dr. Philip Syng Physick, the great American surgeon, who that winter, 1817–1818, delivered his last course of lectures on surgery. A pupil of John Hunter, he taught the doctrines of that great man. As I recall his course of lectures, it seems to me that he was one of the most impressive teachers that I have ever listened to. Dr. Physick was remarkable for great attention to details, and in his operations upon the cadaver he carefully observed all the rules for operating upon the living body. He also recapitulated the lecture of the preceding day before going on with his subject, by questioning the students who occupied the first two rows of seats in the amphitheatre. I may refer to one incident which may illustrate his method and his carefulness. On one occasion he *stumped* the whole class; he had been lecturing on lithotomy the preceding day, and he put the question to the first student—"What instruments should be provided for the operation?" The answer appeared to have been correctly given, but he was not satisfied. The question was repeated to the next student, and finally to the whole class with the same result. Dr. Physick then said it was "a pin, gentlemen, a pin" that was needed to complete the list. This showed his precision, and impressed upon us the necessity of taking care never to go to an operation without the minutest preparation.

Dr. Physick was a man of medium height, with very regular features. His face at that time was pale, as if he suffered from delicate health. He was of very abstemious habits. I remember on one occasion, at a party given at his house, when the servant brought in a tray with wine, I was standing beside Dr. Chapman, when I placed my hand upon a decanter, as I supposed, of wine; Dr. Chapman touched my elbow and told me not to take that; I filled the glass from another bottle, and afterwards asked the Doctor why he had checked me; he said the first was simply colored water, that Dr. Physick had provided for his own use.

In speaking of Dr. Physick's teaching, I should also say that he always lectured extemporaneously, the didactic lectures on inflammation being read by Dr. Dorsey, his nephew. Dr. Physick was dignified in his deportment, and eminently grave; we rarely saw a smile upon his face. His usual dress in the lecture-room was a blue coat with metal buttons, white vest, and drab pantaloons. He was remarkably staid and reserved in his manner, and was always regarded with reverence and great respect by the students. He never indulged in any flights of imagination, and was purely a practical lecturer who brought his knowledge from the stores of his large personal experience.

One of his favorite precepts, was to insist upon great attention to diet after surgical operations. I may mention this anecdote. In one of his lectures he spoke of a very important surgical operation, and said that there was a necessity for attention to absolute diet. The next day in recapitulating, he asked a student what was meant by absolute diet. The student said "toast or barley water." "Will any gentleman tell me what is meant by absolute diet?" Appealing to the whole class. There was no reply. "Water, gentlemen, water." A precept I have never forgotten, and which, I think, is not sufficiently observed at the present day after important surgical operations.

CLINICAL TEACHING IN PHILADELPHIA.

The clinical teaching of that day was not given at the Medical College, as it now is, but at the Pennsylvania Hospital, and the Philadelphia Almshouse, then in the city; each institution affording an excellent school of instruction to the students. As the clinical hours were the same at both institutions, I chose the almshouse as affording a larger field.

Among the clinical teachers of that day, very few were superior to Dr. Joseph Parrish, who had been a pupil of Dr. Wistar. He was a man of most amiable character, thoroughly devoted to the advancement of the profession; having large classes of private students every year, to whom be lectured, and for whom he also provided able assistants to aid in teaching. One of these was the late Dr. George B. Wood. Dr. Parrish was a man of warm sympathies, and he testified to his benevolence in the manner in which he conducted his clinics. Let me give you an illustration. A poor, weather-beaten sailor was brought to the almshouse suffering very much from rheumatism. Dr. Parrish ordered the man to be clothed in flannel, and have a bottle of porter daily. On the next clinical day, Dr. Parrish, on inquiring, found that neither had been attended to. He repeated the order, with a mild rebuke to the steward. At the next visit, three days afterwards, finding that his previous orders had been disobeyed, he called for the steward and remained at the bedside of the patient until the order was fulfilled.

THE TREATMENT OF THAT DAY.

With regard to the treatment of that day, I shall say little, the text-books then studied fairly present it to you. Would that I could speak more satisfactorily of the treatment of the insane as I remember it. They were generally confined in the basement of the alms-

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house in small cells, some with manacles, others with chains, seldom had they access to fresh air, and often they had nothing but loose straw for their bedding. This unhappy and inhuman state of things continued until Pinel and Esquirol established a course of treatment more consistent with the dictates of science and humanity. In a recent visit to the State Lunatic Hospital at Harrisburg, Pennsylvania, of which I am a trustee, not one of the four hundred insane inmates was the subject of mechanical restraint.

At that time, the resident physicians at the Almshouse were not graduates in medicine, but last-course students, who fulfilled their duties while preparing for graduation. The requirements for graduation were attendance upon two full courses of lectures, of four months each, a written thesis on some medical subject, attendance at the Hospital or Almshouse, and an oral examination in the presence of the whole faculty.

THE GREEN-BOX.

Many of the elderly gentlemen present to-day must have heard of the much-dreaded "green-box." During the time of Drs. Rush and Barton, it was reported that favoritism was shown to their respective students, and the same was said of the students of Drs. Chapman and Dorsey. To obviate this, or the appearance of it, a large green screen was placed across one corner of the room, having a door behind it, through which the candidate entered, and here underwent his examination, unknown to any one but the dean of the faculty. This mode of examination was adhered to until after the death of Dr. Dorsey, when it was optional with the student to go into the green-box or present himself openly before the faculty. Some ten or twelve candidates had such a terror of the green-box that they went to New York, where they obtained the degree of M.D. by undergoing an examination and paying the graduating fee.

THE PHILADELPHIA MEDICAL SOCIETY.

Among the facilities for acquiring knowledge offered the students at that time was the privilege of attending the meetings of the Philadelphia Medical Society, which met every Saturday evening. In order to gain admission, as a junior member of the Society, which was composed of honorary and junior members, it was necessary for the student to pass an examination. The committee of the year 1817–18 consisted of Drs. Franklin Bache and Jacob Randolph, the latter being Dr. Physick's son-in-law. I remember with what trepidation I went before the committee, and, to my gratification and surprise, the only question asked me was the composition of Glauber's salts. This examination over, I received a parchment certificate of junior membership, and was admitted to the discussions of the Society. After graduation, I received a certificate of honorary membership. The proceedings of the Society did not differ materially from those of the present day. A paper was read, and subsequently discussed by many of the leading physicians and surgeons of that period, and was a source of great improvement to the junior members.

CALOMEL AND THE LANCET.

It was the time of calomel and the lancet. With regard to the one, I need not speak; but of the latter I feel well assured that the almost total disuse into which it has fallen has cost many valuable lives. From a very large experience in its use, I am satisfied, fully satisfied, that if we depended more on the early use of the lancet in the congestive and inflammatory states of many diseases, our practice would be more successful than it now is. At the present time there is too exclusive reliance upon medicines affecting the nervous and vascular systems, which act with less efficiency, and are less prompt. It is, in my opinion, a very important subject, and I feel assured that ere long the lancet will be more freely used than it is now. In the congestive chills preceding inflammatory diseases, and in the cold stage of intermittents, I have frequently broken up the paroxysm, and relieved the patient by the lancet alone.

In the class of 1817–18, there were many men who afterwards became distinguished in their respective departments. Time will not permit me to enumerate them all.

GEORGE MCCLELLAN.

Among the first was one with whom I was very intimate, Dr. George McClellan. A man of great natural talent, quick perception, and wonderful memory, prompt to decide, and prompt to act, he made himself during his pupilage one of the best anatomists in the country, and subsequently brought more talent into surgery than any man I have ever met with. During his brief, but brilliant career, he performed more surgical operations than any other surgeon in Philadelphia; and he undertook to perform, and did perform successfully, some operations which were considered impracticable by other surgeons. Among these was the removal of the parotid gland. It was my good fortune to visit with him, his first patient the day after the operation; and although it was afterwards reported that it was not the parotid gland, I made a very careful examination of the tumor, and of the patient, and was perfectly satisfied of its identity. This operation he performed several times afterward, one of them on a young Irishman, where Dr. Dease, an eminent surgeon of Dublin, had previously failed.

A beautiful illustration of his diagnostic ability was shown to me when on a visit to Philadelphia; a female infant, about four or five months old, whose parents belonged to one of the most distinguished families in New York, was brought by her father to Philadelphia, to consult the oldest leading surgeons of the city, who all pronounced the case hopeless. The child had from birth, a complete paralysis of the right arm and hand. As Dr. McClellan, at that time, was beginning to acquire popularity as a surgeon, the father was persuaded to consult him. Dr. McClellan made a careful examination, and found that the clavicle was pressing on the brachial plexus of nerves as it passes over the first rib, and that the paralysis was owing to this cause. All that he did was to elevate the shoulder and the clavicle by mechanical means, and the functions of the arm were entirely restored. I saw it playing equally well with either arm on its nurse's lap.

Dr. McClellan was of medium size, fair complexion, and with blue eyes; he was very attractive and agreeable in his manners, very vivacious, and was called "a bundle of nerves." He was very fond of society, and a general favorite wherever he was known. There was no jealousy in his disposition, and I may be permitted to add, that he was the only surgeon in Philadelphia who congratulated me upon the success of my first operation for ovariotomy, in 1843; when I revived the operation, which, after its introduction by Ephraim McDowell, had fallen into disuse, he sought me at my hotel when on a visit to the city, and gave me a most cordial embrace.

Dr. McClellan was among the first to suggest and urge the establishment of another medical college in Philadelphia; and with the assistance of Dr. Eberle, he determined to get a charter from the Legislature, Dr. Eberle being a native of Lancaster county, and having practised both in the city and county for several years before his removal to Philadelphia, had many friends there, and wrote to them asking their as-

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sistance in procuring a charter from the Legislature. With the view of furthering the cause, a public dinner was given to Dr. Eberle by the leading gentlemen of Lancaster, and resolutions were then passed instructing our representatives at Harrisburg, to favor the charter. Notwithstanding the opposition that had always existed among the friends of the University to the establishment of another school, a charter was obtained, authorizing the Trustees of the Jefferson College, at Canonsburg, to grant degrees in medicine, and to locate the school in Philadelphia.

JOHN RHEA BARTON.

Another member of the class of 1817–18, a native of Lancaster, and when young a schoolmate of mine, was Dr. John Rhea Barton, who began the study of medicine with my preceptor, Dr. Samuel Humes, and through the influence of his uncle, Prof. Benjamin Smith Barton, of the University, was appointed a resident pupil at the Pennsylvania Hospital. At that time, I believe, the residents were apprenticed for five years. Such was the distinction he obtained in this position that immediately after receiving the degree of Doctor of Medicine, he was elected one of the attending surgeons, an unprecedented event. While in this position he acquired the reputation of being one of the most dexterous operators in the country. A gentleman —a physician—who after graduating here had spent five years in Paris, and who had seen Dupuytren, Boyer, and Desault operate, told me that with the exception of Dr. Physick, who had been his preceptor, he had never seen Dr. Barton equalled as an operator. He was ambidextrous, and instead of changing sides in amputations, he would change hands.

ISAAC HAYS.

Among my fellow-students in 1817–18, and fellow-graduates in 1820, I should be unmindful of what is due to extraordinary merit were I not to speak of one who has done more for American medical journalism than any other physician in the country; I allude to the late Dr. Isaac Hays, the editor of the *American Medical Journal*, by whose labors, professional accomplishments, and excellent judgment, the leading medical journal of this country was established. Having assisted Dr. Chapman in editing *The Philadelphia Journal of the Medical and Physical Sciences*, the motto of which was the ill-natured quotation from Sidney Smith, "Who reads an American book?" Dr. Hays established, in 1827, THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, which to this day, both in this country and in Europe, is admitted to be, in character and ability, the first. Modest and unassuming, he scorned the arts by which many seek prominence, and during a long and very busy life sustained the character of a high-toned and honorable gentleman. To him are we chiefly indebted for the preparation of the Code of Ethics of this Association, which some of our physicians, from motives we cannot appreciate, would be willing to mutilate or destroy.

SAMUEL HENRY DICKSON.

To another fellow-graduate I may with great propriety allude. Dr. S. Henry Dickson was one of the most accomplished scholars, both in medical and miscellaneous literature, it was my good fortune to know. Having obtained, by his extensive acquirements, sound judgment, and high character the first position in his native city, Charleston, South Carolina, he was elected Professor of the Theory and Practice of Medicine in Jefferson Medical College, where he lectured with distinguished ability to the close of his life.

GEORGE B. WOOD.

Dr. George B. Wood, known to many of you, was graduated at the end of my first course, in 1818. The possessor of an ample fortune, he devoted his wealth, his untiring industry, and his great acquirements to the promotion of sound knowledge, and the welfare of the Medical Department of the University of Pennsylvania.

CHANGES IN THE UNIVERSITY FACULTY.

In the winter of 1819–20, when I attended my second course, a change had taken place in four of the chairs at the University. Dr. Physick, in consequence of the death of Dr. Dorsey, had been elected professor of anatomy, and Dr. Gibson was brought from Baltimore to fill the chair of surgery. Dr. Coxe was taken from the chair of chemistry to teach materia medica; and Dr. Robert Hare was appointed to teach chemistry. These changes were not very agreeable to those who, like myself, were attending their last course, as it took from the chair of surgery that great man, Dr. Physick, and placed him in a position where he had to renew his early studies. It placed Dr. Coxe in what might be called his favorite element, for there was hardly a single article of the materia medica, from the time of Hippocrates to that day, that he did not notice in his lectures. It was very amusing to the class, after Dr. Chapman had recommended the use of a medicine as emanating from Dr. Physick, to hear Dr. Coxe, a day or two afterward, taking especial pains to tells us that the remedy had been used from the time of Galen or Celsus. Dr. Hare, who never failed in an experiment before the class, had great hesitation in explaining the rationale, not having the gift of fluent speech. He gave an excellent demonstrative course on chemistry, particularly on the subjects of heat, magnetism, electricity, and galvanism, which, since his day, have excited the attention of the whole scientific world. Dr. Hare was a large man, of great muscular physique, but possessing the manners and feelings of a courteous gentleman.

Dr. Gibson, whom I have referred to as coming from Baltimore, where he had acquired great reputation as a surgeon, had been a pupil of the celebrated Charles Bell, of London. At first, he read his lectures, which made him somewhat unpopular with the class, as his predecessor, Dr. Physick, had always lectured extemporaneously. Being told of this, it was said that he afterwards committed his lectures to memory.

QUIZ CLUBS.

At the time of my attendance upon lectures, there were very few boards of examiners, and the graduating classes were generally divided into "quizzing clubs" of six students, each of whom took notes at the lectures of the different professors. We examined each other twice a week on the lectures of the preceding three days, and recapitulated on Sunday afternoon, having been told by Dr. Wistar that we could not spend Sunday more profitably than in the dissecting-room. So Galen ends his book, *De Usu Partium Corporis Humani*, by saying it is an ἐπῳδος, or a song sung standing before the altars of the gods, *hymnis deos celebrantes*. The result of these frequent examinations was that, although we had some idle fellows among us, every member of our club received his diploma.

With the garrulity, and may I not call it the privilege, of your oldest brother, I present you with some of the reminiscences of my college-life. Before I close this address, let me briefly call your attention to some other subjects, which, in my opinion, are of pressing importance. Let me impress upon the mind of every member of the profession the necessity of strict and undivided attention to the duties of his high calling. Let no outside influence operate to interfere with these duties. When you undertake the care of a patient, your whole duty belongs to him. The intermission of

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a single visit, which, on your part, may have been devoted to pleasure, may sacrifice the life of your patient.

THE CODE OF ETHICS.

Above all things, ever strive to maintain the honor and dignity of the profession. Let no selfish or mercenary consideration deter you from observing the laws laid down in our noble Code of Medical Ethics. Cultivate friendly relations with your local medical brethren, more particularly the younger; and regulate your intercourse with all men in such a way as to cast no stain upon the honor of the profession, which is in your keeping.

THE PROFESSION BEFORE THE ADOPTION OF THE CODE.

In my day, previous to the establishment of medical societies throughout the country, and the organization of the American Medical Association, and the general adoption of the Code of Ethics, I saw many disastrous effects from the want of brotherly consideration and kindness. The medical men of that day were often in difficulties, patients would be taken from one physician to another without ceremony; and so great was the jealousy existing between them, that for more than twenty years after my graduation, it was impossible to form a medical society in my native city and county, because there were so many aspirants for the honors. Here let me speak of some of the difficulties I had to encounter in my early professional life. Instead of being taken by the hand by the older physicians, every obstacle was thrown in my path—consultations were refused, and the treatment of my patients unfavorably criticised.

WHAT THE CODE HAS ACCOMPLISHED.

By the establishment of medical societies and the adoption of the Code of Ethics, a wonderful change has been effected. We now feel it our duty to sustain our younger brethren, to treat them with courtesy and kindness, to save them from their errors, and encourage them in all their good work. Had the adoption of the Code of Ethics no other result than this, it would have been an invaluable blessing to the profession. But it has accomplished more. It has put the seal of condemnation upon all "isms," and developed an *esprit de corps* that has enlarged the boundaries of our science, and greatly increased the usefulness and social standing of the profession.

Now, gentlemen, before concluding, let me state that, being aware that reports and papers upon every important topic connected with the different departments of medicine will be presented by the Chairmen of the sections, and by individual members, I have not entered upon the discussion of any subject, either medical or surgical.

Our meetings are for the purpose of promoting social intercourse, as well as for the advancement of medical science; but we should devote sufficient time to the discussion of the various subjects presented to us, and not allow them to be too greatly interfered with by social entertainments.

One word more, and I have done, and I say it chiefly as a word of encouragement to the younger among you. At the close of a long life, one devoted unreservedly to the study and practice of medicine, I will say that, notwithstanding its uncertainties, its fatigues, its anxieties, its bitter disappointments, I am completely satisfied that in no other career can a man more fully accomplish his whole duty to God and to his fellowmen; so that when life here is ended, it can be truly said of him as—be it said with all reverence—was said of Him whom we all should imitate, *pertransivit benefaciendo—He went about doing good.* Trusting that our proceedings may be both harmonious and profitable to us all; and thanking you again for the honor you have conferred upon me, I sincerely hope that the recollections we shall carry home with us will be both agreeable and lasting.

ORIGINAL ARTICLES.

VALUE OF EARLY OPERATIONS IN MORBID GROWTHS.

BY S. D. GROSS, M.D., D.C.L. OXON., LL.D. CANTAB.

(*Read before the American Surgical Association, May 31, 1883.*)

THE value of early surgical interference in morbid growths, especially the malignant, has long been recognized by writers and teachers, but, unless I greatly err, it has not been discussed with that degree of force and emphasis to which its intrinsic merits entitle it. I therefore purpose laying the matter before you, if possible, in a stronger, if not also in a clearer light, than any in which it has hitherto been presented, and in this wise bring it more fully under your notice for elaborate and dispassionate consideration.

The great reasons for the removal of tumors in the early stages of their development, may be thus stated: 1. The less risk of shock and of hemorrhage; 2. The more effectual riddance of the diseased structures; The diminished probability of septicæmia, or blood-poisoning; 4. The avoidance of unsightly scars; and 5. The less risk of a recurrence of the morbid action, either at the seat of the operation or in other parts of the body. These propositions are so self-evident that any formal discussion of them seems to be out of place; nevertheless, it may be well to call special attention to a few points in order to impress them more fully upon your mind.

The fact is now generally, if not universally admitted, that all morbid growths or tumors, whether benign or malignant, are of local origin. That the constitution, in certain conditions, as when from any cause the general health is more or less seriously impaired, may predispose to such formations, is not improbable, but that a neoplasm can be developed in any organ or structure of the body of a perfectly sound person, without some local cause, is what no enlightened pathologist of the present day believes or teaches. There is unquestionably occasionally a hereditary tendency to the development of morbid growths, both benign and malignant. We see this tendency, sometimes in a remarkable degree, displayed in warts and sebaceous cysts. Examples of the latter I have repeatedly witnessed in three generations, and instances doubtless occur in which this disposition manifests itself still further. Malignant diseases, as carcinoma and certain forms of sarcoma, occasionally betray a similar tendency. As many as three, four, or even five cases of scirrhus of the mammary gland have been noticed in as many different members of the same family. Epithelioma of the lip, skin, vagina, and uterus occasionally exhibits a similar freak.

I state, as another incontrovertible proposition, that all morbid growths, tumors, or neoplasms are the product of perverted nutrition, in which the comparatively few cells native to the part are re-

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placed by colonies of young cells, of the latter of which the new product is essentially composed.

All morbid growths are developed, directly or indirectly, under the influence of inflammatory action, the result of external injury, or, as is more frequently the case, of some mechanical obstruction, causing, in the first instance, congestion of the part, and this, in turn, incited action and inflammation, both leading sooner or later to abnormal cell-growth, cell-formation, or cell-development. It is in this way, and in this way alone, that we can satisfactorily explain those morbid growths, both benign and malignant, which, as the phrase goes, arise without any assignable cause. One of the most simple of all tumors, the sebaceous, is formed under the irritating influence of its own natural secretion, retained by the closure of its natural outlet. Obstruction of a lacteal duct is, there is no doubt, a frequent starting-point of scirrhus of the mammary gland. There is not a surgeon of any experience anywhere who has not occasionally met with cases of carcinoma which were due, directly or indirectly, to the effects of local injury.

Having laid down these propositions as so many fundamental principles, we are now in a position to take up the question of the importance of early surgical interference in morbid growths. The remarks which I shall offer under this head are intended to apply more especially to malignant neoplasms.

There are some tumors whose distinguishing features are so well marked, even in their earlier stages, that he who runs may read. On the other hand, great difficulty often presents itself, sufficient to perplex and puzzle the wisest and most experienced head, as well as the most cautious observer. When the tumor is fully developed, when its features stand out, as it were, in full relief, there can rarely be any doubt about its true nature, certainly seldom in the mind of an educated surgeon. Unfortunately few of the cases of malignant disease, either in our rural districts or even in our larger towns, come under our observation in time for early surgical interference. In the great majority of instances the mischief, in the form of great structural lesion, if not serious constitutional involvement, is unfortunately effected before the scientific and enlightened practitioner has an opportunity of inspecting the morbid product. Three circumstances may be enumerated as contributing mainly to this result: the want of correct diagnosis, the dishonesty or knavery of the professional attendant, and the folly or stupidity of the patient.

It is in vain to conceal from ourselves the fact that there are comparatively few reliable, ready, or trustworthy diagnosticians. Diagnosis is a high art, and it is not saying too much that the profession, as a body, are not sufficiently familiar with it to render it at all times, or even in a minority of cases, properly available at the bedside. It is, of all the arts in our profession, the one which demands the greatest amount of refined culture, experience, and tact, not culture, experience, and tact of an ordinary type, but of the highest possible type. Founded essentially upon a thorough knowledge of pathological anatomy, a branch of science little cultivated in any of our schools, and totally neglected in most, it is not surprising that the art of diagnosis should be so little understood by the generality of practitioners, and so many errors committed in the examination of morbid growths. If there is any one thing in the organization of our medical colleges more culpable, I had almost said more criminal, than any other, it is the exclusion from their curriculums of the study of pathological anatomy. Just in proportion as our knowledge of morbid structure is positive, accurate, and comprehensive will be the probability that we shall become skilled diagnosticians, and conversely. Hence, so long as this state of things exists, we shall look in vain for any marked improvement in this direction, and what is true in this respect is true alike of city and country practitioners, standing, as they do, upon the same unfortunate platform.

Knavery, dishonesty, and self-conceit are found in all ranks of life, and among all classes of men. That our profession should be wholly exempt from these infirmities is not to be expected. It abounds in charlatanry, in men who promulgate their claims in all kind of ways to allure and deceive the people by holding out false pretensions of cures, which they well know can never be realized. In this manner important time is often lost by permitting the case to progress until the propitious period for affording relief has passed by. In making these remarks, I desire to apply to the term "charlatan" a wider signification than the one in which it is usually employed. There are "quacks" in every profession, the clerical and the legal not less than in the medical; men who do not hesitate to prostitute their honor to self-interest, and make the merest trade of their vocation. Money is their god, and they worship him in any way best adapted to their object. Such men are not any better than the avowed, advertising charlatan.

A patient laboring under a serious morbid growth may consider himself as peculiarly fortunate if, in the early stage of his troubles, he fall into the hands of an intelligent, upright, conscientious surgeon. Such a man will not hesitate to express his honest convictions. He will not esteem it a disgrace to say to his patient, "your case is one I do not comprehend; it is an uncommon case; it is beyond the grasp of my limited experience; go and consult some one whose opportunities of observation have been more extensive; and be sure to lose no time in carrying my advice into effect. The knave, on the other hand, will do all he can to mislead his patient, and lull his fears by assuring him that his disease is of no importance, or by telling him that it will either remain stationary or, in time, disappear spontaneously. He is afraid to tell the truth, lest by showing his ignorance he should lose prestige, and thus damage his practice. To cap the climax of his impudence, he may even assure his patient that he is fully master of the situation, and that he knows as much about the nature of the case as the wisest and most experienced surgeon in the land. Now, it is precisely men of this stamp, and their name is legion, that do the mischief.

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Ignorant of the art of diagnosis, or incapable of telling the truth, they allow the case to proceed from bad to worse, until the poor patient, in a fit of desperation, seeks, as a *dernier resort*, relief at a more enlightened and more honest shrine. The examination now made reveals the fact that the disease has made hopeless progress, and that any operation, if proper at all, can afford only temporary relief. Let me instance, as an illustration of my meaning, carcinoma of the female breast.

This disease, as is so well known, generally begins in the substance of the mamma as a small nodule or tumor, hard on pressure, and the seat of occasional pain of a shooting or darting nature. The woman is forty-five years of age. As the morbid action advances, the growth enlarges, the pain increases in severity and constancy, and, by and by, retraction of the nipple is noticed. Gradually the growth becomes more and more fixed in its situation, and if now the glands in the axilla—naturally so diminutive as to be scarcely distinguishable—be examined, they will be found more or less enlarged and indurated. The diagnosis is not difficult. The case is one of scirrhus, nothing else. A careful examination of the breast, and a careful consideration of the history of the case, leave no doubt as to its true character. If the patient is under forty years of age, or from twenty-five to forty, with a hard, movable nodule, the seat of occasional darting pain, especially annoying during the menstrual period, unaccompanied by change in the nipple, in the surface of the breast, and in the axillary glands, we assume that the neoplasm is a fibroma or adenoma, and unhesitatingly assure the patient that excision of the growth will eventuate in a complete cure.

In carcinoma of the breast, the honest and enlightened surgeon does not wait for involvement of the axillary glands or serious structural disease. He knows that the patient's safety, present and prospective, lies in the early use of the knife and in thorough excision. He urges the importance of prompt interference, and assures the patient that, if the operation be properly done, it will probably eventuate in a permanent cure, or, if relapse occur, that there will be a comparatively long exemption from suffering. Everbody knows what the result of excision of the mammary gland in ordinary cases of cancer is; how rarely the disease is completely removed, and how few women live beyond eight, ten, or twelve months after such interference. In all such cases, cancer cells have invaded the neighboring structures beyond the reach of the knife, especially as ordinarily employed, and serve as foci of new neoplasms. It makes one's very soul ache to see so many women doomed to endure the most frightful suffering in carcinoma of the breast for the want of a correct early diagnosis and the thorough ablation of the diseased structures. Of all the agony I have ever witnessed, there is none at all comparable to that arising from this form of malignant disease of the mammary gland in its more advanced stages.

Finally, there is a class of patients, the subjects of neoplasms, who, influenced by timidity or mock modesty, wilfully deceive themselves. Such persons are fully aware that there is some disease going on somewhere—that there is a thief concealed in some part of the house—but they are afraid to have the matter properly investigated, lest their worst fears should be realized, and be thus made miserable. They conceal from themselves, as well as from their friends, their true condition, and when this condition is at length discovered, it is generally found to be too late to afford any benefit, except of the most transient kind, by surgical interference. Like the ostrich, they hide their heads under their wings in the delusive hope of thus escaping the danger which threatens them. Of such cases, I have seen not a few in the course of my practice.

What has now been said is true alike of carcinoma, of sarcoma, and even of benign growths. In carcinoma, the cells are conveyed from the original disease by the lymphatic vessels, and in sarcoma by the bloodvessels, whereas in the ordinary tumor the increase is due simply to cell-proliferation, which often proceeds with extraordinary rapidity, the growth in a short time acquiring an enormous bulk.

In all operations undertaken for the removal of neoplasms of whatever nature, the golden rule is to perform the work as thoroughly as possible. If this cannot be done it is better in many cases, if indeed not in all, not to meddle with the growth at all, as such interference often only tends to light up increased activity, not only in the abnormal structures themselves, but in the surrounding ones. In carcinoma, the knife, as already repeatedly stated, cannot be employed too early. The longer it is withheld the greater will be the probability, not of relapse, properly so called, but of some of the cancer cells being left behind, buried out of sight, and thus serving as new centres of morbid action. All secondary developments, as enlarged and indurated lymphatic glands, should of course be removed in immediate succession. All sarcomatous neoplasms are, as a rule, dangerous formations, however early subjected to the knife, not so much on account of any inherent tendency to recurrence after extirpation, as from their liability to attack other parts of the body from causes similar to those which gave rise to the primary disease. The worst of all the sarcomas is the round-celled. Any rapidly growing tumor is, as a law, a bad subject for successful surgical interference. In excising the mammary gland for the removal of carcinoma, the plan so successfully adopted of late years by Dr. S. W. Gross, of cutting widely around the diseased structures, and healing the wound by the granulating process, is worthy of all praise. In a number of cases thus treated by him, the result has been eminently gratifying, one of the patients remaining perfectly well after the lapse of nearly five years from the time of the operation.

All benign growths of rapid development cannot be extirpated too soon. Let us, for example, take a cystic tumor of the ovary. No one will deny that a neoplasm of this kind of small bulk can be removed more easily, and with less risk to life, than a large one, or one of long standing. In the former case, there will probably be no adhesions, and little

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or no danger of hemorrhage or shock; a comparatively small incision will be required to expose the mass, and the resulting peritonitis will be restricted within the healthy limits, the limits of repair. In ovarian cysts of large size, the reverse of all this is usually the case; there is also apt to be greater shock and greater liability to blood-poisoning. Similar remarks are applicable to chondromas, fibromas, and osteomas; operated upon early in their progress, their removal is generally easily effected with little or no risk to life; allowed to remain until they have attained a large bulk, the troubles and dangers of operative interference are augmented a hundred-fold. Nothing more happily illustrates the truth of the old adage, "A stitch in time saves nine," than early operations for the cure of such growths.

What should be the rule of action of the surgeon in cases in which, as for instance, in carcinoma of the breast, in which, perhaps, several operations have already been performed, there is a large ulcerated surface, attended with excessive pain and a large quantity of the foulest discharge, poisoning the very atmosphere which the sufferer is obliged every moment to inhale? Surely no sensible and humane practitioner would hesitate in such a condition to do the only rational thing to be done—to sweep away the whole mass of disease, so far as it is accessible to the knife, and then treat the wound and the system upon general principles. Such a procedure is the only feasible one of relieving pain, of moderating suppuration, and of making the patient temporarily comparatively comfortable. Death under such circumstances is generally hailed as a welcome visitor. In malignant disease of an extremity, attended by such a state of things, the proper remedy would, of course, be amputation without any ulterior hope of a cure. In the throat, portions of the sprouting mass may be clipped off with the scissors, and in the nose and the vagina, scraped away with special instruments. When all hope is at an end, the only thing to be done is to impart a silver lining to the remnant of life by means of anodynes, administered in quantities sufficient to relieve pain and promote sleep.

What I have here said respecting early surgical interference in malignant and other morbid growths applies with equal force to many other surgical affections, as well as to diseases in general. Thus an abscess, if not opened early and freely, is sure to cause serious destruction of tissue, to say nothing of the concomitant pain and other distress. A small stone is more easily crushed or extracted than a large one, while the risk to life is incomparably less, inasmuch as there is less danger from shock and hemorrhage, laceration of structure, urinary infiltration, pelvic cellulitis, peritonitis, pyæmia or uræmic poisoning. Besides, the longer a stone remains in the bladder and the more it increases in size, the greater will be the chance of its causing serious disease of the bladder and of its dependencies.

A pneumonia in its incipiency is, in general, easily managed. Rest in bed, abstinence from food and excitement, and an anodyne diaphoretic, with a turpentine stupe or a dozen dry cups to the chest, usually suffice to cut short the attack in a few hours, or, at most, in a few days. Allowed to progress, it becomes one of the most formidable maladies with which the physician has to cope, and forms one of the great sources of mortality, especially of advanced life.

A CASE OF NEPHRECTOMY FOR MEDULLARY CARCINOMA, AND PARTIAL CHOLEO-CYSTECTOMY FOR CALCULUS, IN THE SAME SUBJECT.

BY SAMUEL W. GROSS, M.D.,
PROFESSOR OF THE PRINCIPLES OF SURGERY AND CLINICAL SURGERY IN THE JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.

(*Read before the American Surgical Association, June 1, 1883.*)

ON the 14th of April, 1883, I was requested by Dr. William V. Keating to see with him a widow, fifty-nine years of age, who first noticed a small and painless tumor in the right iliac fossa, three months previously. The tumor occupied the lower right lumbar and inguinal regions and about one-third of the hypogastric region, was apparently as large as a child's head, nodulated, of tolerably firm but unequal consistence, mobile, everywhere dull on percussion, there being not the slightest evidence of the presence of the intestines in front of it, and a few drops of bloody fluid were obtained with the exploring needle.

Dr. Keating informed me that the patient had an attack of hæmaturia towards the end of February, which was repeated twice in March, the last requiring the internal administration of ergot for its control. About the middle of February, she began to have pain in the loins, and especially in the right one, which increased in severity with the growth of the tumor. From an examination made two weeks before I saw her, Dr. Keating excluded disease of the uterus or ovary, and diagnosticated carcinoma of the kidney. With the exception of a somewhat sallow and worn appearance, and attacks of migraine, the patient was in her usual good health.

The existence of a rapidly growing tumor and hæmaturia certainly pointed to malignant disease of the kidney; but the mobility of the mass, the fact that it was first observed in the anterior and lower portion of the belly, and that a lateral origin could not be traced, along with the absence of some portion of the intestines in front of it, rather favored the idea of sarcoma or carcinoma of the ovary. In his recent work on *Ovarian and Uterine Tumors*, Mr. Wells states that neoplasms of the kidney are fixed, that they are situated behind the intestines, and that they are originally detected between the false ribs and the ilium, whence they extend first towards the umbilicus, next into the hypogastrium, and lastly downwards towards the groin. As these symptoms were reversed in the case under consideration, it is quite evident that, however reliable they may be when the growth is small, they cannot be depended upon when the growth is large. The diagnosis was also obscured by the condition of the bladder, the fundus of which was found to be tender on exploration with the sound, so that it might have been a possible

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source of the hemorrhage, particularly as the urine contained no other foreign elements than blood-corpuscles.

Under these circumstances, it was determined to advise the patient to submit to an exploratory incision, with the understanding that the question of further interference be left to our judgment.

With the assistance of Dr. Keating, Dr. Mears, Dr. Hearn, Dr. Wirgman, and Dr. Newman, the operation was performed, under ether, and with strict antiseptic precautions, on the 20th of April. An incision was made from two inches below the umbilicus along the linea alba for three inches, and hemorrhage arrested with artery clamps, before the peritoneal cavity was opened. Exploration of the tumor showing that the kidney was the organ involved, the incision was prolonged to within two inches of the tip of the ensiform cartilage, when the enormously enlarged and fatty right lobe of the liver was seen to extend into the upper right lumbar and umbilical regions, the gall-bladder, distended with bile, and occupied by a stone as large as a Spanish olive, reaching almost to the umbilicus. The peritoneum covering the anterior surface of the tumor was pervaded by large vessels. This was divided to a slight extent, and rapidly peeled off with the fingers, the procedure being attended with considerable venous hemorrhage. On account of the friability of the tumor, and the projection of a fungous mass along the side of the pelvis of the kidney, it was thought best not to incur the risks of hemorrhage by endeavoring to ligate the ureter and renal vessels separately. Hence the pedicle was transfixed, and tied in two portions with stout carbolized pure silk threads, and the tumor severed from its attachments. Furious bleeding occurred from the renal artery; but Dr. Mears succeeded in grasping the pedicle with his fingers, when I was enabled to encircle it with a catgut ligature, through which further loss of blood was effectually prevented. At this stage of the procedure, the color had left the face, and the pulse was very feeble. The calculus was then drawn down into the fundus of the gall-bladder, both of which were cut away after the latter had been secured with a catgut ligature. The peritoneal cavity having been carefully cleansed of blood, the edges of the incision were united with silver sutures carried through the entire thickness of the abdominal wall; a drainage-tube was inserted in the lower angle of the wound, and carbolized gauze was secured in position with a flannel bandage. The operation occupied fifty-five minutes, and, towards its completion, brandy and iced water were freely administered by the mouth, with the effect of steadying the pulse and relieving the pallor.

The patient reacted well, and at 4 P. M., or three hours after the operation, a hypodermic injection of morphia and atropia was administered on account of suffering. At 8 P. M. the pulse was 108, and the temperature, taken by the mouth, was 100.1°. The catheter drew off three ounces of urine.

April 21. — The patient passed a comfortable night, until 4.30 A. M., when she complained of slight nausea and pain. Brandy and iced milk have been administered every three hours. The urine was drawn off at 6 A. M. Morning temperature 99.4°, and pulse 100. The bladder was evacuated at 9.30 A. M., and again at 2.30 P. M., and a subcutaneous injection of morphia given, at the latter hour, which was repeated in three hours. Evening temperature 100.1°; pulse 104. Urine drawn off at 8.30 P. M.

22d.—At 11 P. M. last night the patient was seized with a slight chill, and vomited a small quantity of bile. The temperature was 98.4°, and the pulse 130, which had risen respectively to 103° and 148 at 12.30 A. M. At 1 A. M. half an ounce of urine was evacuated; an hour later, she had quiet delirium; and at 3 A. M. she had another hypodermic injection of morphia to relieve her great pain and restlessness. At 6 A. M. the catheter failed to bring away any fluid, and from this time until her death, twenty-three hours later, there was complete suppression of urine, for which infusion of digitalis and hot applications to the left lumbar region were ordered. At 8 A. M. the pulse was 132, and the temperature 102°. On dressing the wound, the parts were found to be perfectly dry, and as there had been no escape of fluid through the drainage-tube, the latter was removed. There was some tenderness in the right loin and slight tympanites in the left lumbar region. Dressings reapplied. 11.30 A. M., pulse 138, and feeble. 6 P. M., pulse the same; temperature 97°; hands cold; intellect clear; voice strong; tongue moist. Morphia administered by the skin. 10 P. M., pulse flickering and scarcely perceptible.

23d.—At 1 A. M. patient became unconscious, and was very restless, and death ensued at 5 A. M., or sixty-five hours after the operation.

On post-mortem inspection, the wound was found to have united throughout the greater portion of its extent. The peritoneal cavity contained about six ounces of blood-stained serum, and some of the coils of the small intestines were livid, and slightly adherent to one another. The left kidney was apparently sound and slightly congested. The bladder was empty and contracted; the liver was greatly enlarged and fatty. The stumps of the pedicle of the kidney and of the gall-bladder were in an excellent condition. The viscera and lymphatic glands were free from secondary growths.

The kidney weighed eighteen ounces, and measured fifteen inches and a half in its long circumference, and ten inches and a quarter in its short circumference. With the exception of one inch of its upper extremity, it was converted into a medullary tumor which, on subsequent minute examination, proved to be carcinomatous.

The fatal issue was evidently due to peritonitis, complicated by suppression of urine, which was not secreted for twenty-eight hours before death. Indeed the total amount drawn off during the first thirty-seven hours scarcely amounted to sixteen ounces, and it was for this reason that we were somewhat chary in administering opium. In the way of nourishment, she took milk, brandy, and champagne, all of which were well borne by the stomach.

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The kidney has been extirpated for sarcoma and carcinoma twenty-two times, the operators having been Czerny in five cases, Kocher in two cases, and Wolcott, Martin, Langenbuch, Jessop, Hueter, Lossen, Barker, Byford, Bardenheuer, Whitehead, Hicquet, Luecke, Adams, Thornton, and myself, respectively, in one case. The nature of the tumor is recorded as sarcoma of the kidney in 14; carcinoma of the kidney in 3; encephaloid of the kidney in 3; sarcoma of the capsule of the kidney in 1; and perinephritic sarcoma in 1. Of the 22 cases, 1 was under treatment at the date of the report, 9 recovered, and 12, or 57.14 per cent., died. Fifteen of the operations were by the abdominal incision, of which 5 recovered, and 10 died; and 7 were examples of the lumbar incision, of which 4 recovered, 2 died, and 1 was still under treatment. The causes of death were primary hemorrhage in 2; collapse ten hours after furious bleeding in 1; peritonitis in 3; septic peritonitis in 1; and shock, pulmonary embolism, uræmia, septicæmia, and exhaustion from profuse purulent discharge each in 1.

It will thus be seen that, apart from the risks common to all ventral and lumbar incisions, the great danger is from hemorrhage, which, even if it does not terminate fatally, may be expected to be considerable in the majority of cases, from the renal artery, the renal vein, particularly on the right side, or from one of the large veins ramifying over the tumor. Hueter's patient perished during the operation from laceration of the renal vessels. In one of his cases, in attempting to enucleate the tumor, Czerny tore the renal artery, and was obliged to tie the aorta, the patient surviving ten hours; and in a second case the patient died on the table from bleeding from the lacerated renal vein. Luecke tore the vena cava, but arrested the hemorrhage by temporary compression, the patient expiring from uræmia on the fourth day, the remaining kidney being cystic and contracted.

In expressing an opinion as to the wisdom of extirpating a kidney the seat of malignant disease, the questions of the immediate mortality of the operation, of the chances of early recurrence, of the prolongation of life, and of a final cure must be considered.

1. As I have pointed out, the mortality of the procedure is 57.14 per cent., which is not only greater by 20 per cent. than that after nephrectomy for other lesions, but also exceeds that of colectomy, laryngectomy, or any other excision for malignant growths, with the exception of resection of the pylorus and abdominal hysterectomy. On this ground, therefore, the operation is to be condemned.

2. The question of recurrence is not easy of solution, since of the nine recoveries, there is no further history in two; one died of recurrence in nine months, the case having been that of a child two years and a half old, under the care of Jessop; one died of secondary growths in forty-five days, the primary growth having existed two years; and five remained well, respectively, for thirty months, twenty-two months, three months, two months, and forty-six days. Hence, the disease returned in 28.57 per cent. of the cases. All of the tumors were sarcomatous. Of the patients who did not survive the operation, in at least four—the growths having been sarcomatous in two and carcinomatous in two—portions of the tumor were left behind, and continuous recurrence would, of necessity, have carried them off. Of the nineteen living or dead cases in which the result is known, therefore, the disease returned or would have returned in six, or 31.57 per cent.

3. Extirpation of the kidney for malignant growths certainly does not prolong life, if the statements of Rohrer and Roberts be true, that the average duration of life without operation is two years and a half for adults, since, of the cases in which this point could be traced, the average life was rather less than twenty-four months.

4. The cases are too few upon which to base the decison of final cure; but the record of two patients who remain well for thirty months and twenty-two months is far from being a gloomy one, in an affection which is invariably fatal if not subjected to surgical interference.

Although the immediate mortality is so great, and although the recurrences number nearly one-third, I am of the opinion that, after the risks have been fully explained to him, the patient should be given the chance if he desires it; and this view is strengthened by the fact that primary malignant disease of the kidney evinces less tendency to invade the surrounding tissues, and give rise to metastases, than similar disease in other organs. Kühn declares that secondary growths are found in only 28 per cent. of the cases in children, and in 44 per cent. in adults. If these statements be true, nephrectomy, in the early stage of the affection, should in the future show more favorable results than have attended it up to the present time, especially as the majority of the growths of the kidney are of a sarcomatous nature.

In the extirpation of sarcomatous or carcinomatous kidneys, the following rules should, if possible, be rigidly adhered to: The capsule of the organ should always be removed; the incision, when the growth is large, should be made along the outer side of the rectus muscle, as recommended by Langenbuch, through which the ureter and renal vessels can be more readily and safely reached than through the median ventral incision; and the ureter should be pinned outside the abdominal incision, as practised by J. Knowsley Thornton, so that the septic material which it contains may not be left in the cavity of the belly. Another real source of danger is sloughing of the ligated ureter when dropped into the abdomen. Such an accident happened to Mr. Thornton, in his case of extirpation of a kidney for sarcoma of its capsule; but, as he informed me in a letter dated April 1, 1883, the slough came away through the drainage opening on the fortieth day, and his patient was alive at the time that he wrote me.

The gall-stone was removed with the investing portion of the gall-bladder to get rid of a source of discomfort in the event of the patient's recovery.

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That the operation would not increase the risks was inferred from the fact that Langenbuch, in 1882, successfully extirpated the gall-bladder of a man, forty-three years of age, on account of calculous concretions. The stone might have been removed by an incision, which could have readily been united with the continued suture; but the former course was deemed the more advisable, as the weak condition of the patient demanded the immediate closure of the abdominal incision in order that she might be put to bed, and that bottles of hot water might be applied to the extremities.

MEDICAL PROGRESS.

QUEBRACHO IN DYSPNŒA.—MARIANI thus sums up a paper on quebracho in the treatment of dyspnœa: 1. Quebracho diminishes the frequency of the respirations and cardiac contractions. 2. Its action appears to be principally directed on the heart, strengthening and regulating its contractions, either directly or by the influence of the nervous system. 3. This action is evident and immediate. 4. It is the only remedy which has a manifest antidyspnœic action. 5. In nervous dyspnœa it must be tried in a greater number of cases to judge of its action. 6. It probably produces the same effect in dyspnœa from acute affections of the thoracic organs. 7. The prolonged administration produces no alteration in other organs or functions.—*London Med. Record*, May, 1883.

PERITONEAL TRANSFUSION FROM AN ARTERY.—DRS. CORONA and COCCO-PISANI, after making experiments on animals as to the effects of direct transfusion from an artery into the peritoneal cavity, report the following results: 1. Pure blood, passed directly from a carotid artery into the perineum of another animal, is entirely absorbed. 2. In small animals, three ounces of blood had been entirely absorbed in five days. 3. The blood, until its disappearance, remains fluid in the peritoneal cavity. 4. The increase of hæmoglobin begins after twenty-four hours, and continues for a certain indefinite time. 5. The animal suffers no injury on the part of the peritoneum or of any other organ.—*Centralblatt für Chirurgie*, March 24, 1883.

RUPTURE OF THE SCIATIC NERVE.—DR. CONRAD KUSTER reports a case in which a rupture of the sciatic nerve was mistaken for fracture of the neck of the femur. The patient, a strong man, æt. 30, slipped and fell backward while walking. He immediately felt a severe pain in the right leg, and numbness in the foot. He was unable to stand, and was carried to his house, where Küster saw him on the following day. At that time, he was suffering great pain in the limb—so great that a dose of morphine only partially relieved it. The limb was rotated outward, and seemed shortened. There was slight swelling in the neighborhood of the hip-joint, and pain on pressure was most severe at this point. At first sight, there seemed to be a fracture of the neck of the femur. This diagnosis had been guardedly made by two physicians, who saw the case soon after the accident, but, on account of the intense pain, had not made an examination. Dr. Küster diagnosticated rupture of the sciatic nerve, as there was no crepitation, and passive movements caused but little pain. The subsequent conduct of the case confirmed this diagnosis. Morphine was given to relieve the pain, and warm baths administered as soon as possible. The patient was in bed over six weeks, and five months afterwards was able to go about with a crutch and stick.—*Berliner klin. Woch.*, March 26, 1883.

REFRACTURE OF THE PATELLA.—MR. H. PARSON gives the particulars of a case of refracture of the patella (for the third time), with a description and illustration of a new appliance for treating fractured patella. It consists of two semilunar pieces made of some round, narrow, unyielding material, shaped to fit the edges of the lower and upper fragments. One piece slides on the other and admits of closing and separating them by means of screws and without any other movement; so that, when adjusted and firmly strapped to the side supports of a suitable splint prepared for it, the upper and lower pieces are perfectly rigid one with the other. It is then almost impossible for the patella to slip out of position. The semilunar pieces being narrow, they form grooves for themselves behind the fragments, and have a tendency to run under the bone instead of over-riding as most other appliances do; thus the pieces are kept firmly in good position in their proper plane and have no tendency to tilt. This apparatus was applied about the end of the third week from the date of the accident, and the patient removed to the couch. At the end of the fourth week he came down stairs with assistance, and went out in a Bath chair. At the fifth week he walked round the garden with the aid of sticks. At the seventh week he walked a mile with one stick. At the end of the eighth week he returned to business, walking to and fro, that is, two miles daily. He could walk well wearing the appliance, and experienced very little inconvenience, and to the best of my knowledge, the fragments never slipped once during the twenty weeks that he wore the splint. The pressure was relieved at times by small tufts of cotton-wool, and by wearing an old splint at night, but during the latter part of the time nothing was worn at night, thus abrasions from continued pressure were avoided entirely.

The patient now walks well, and is not particular as to distance, but still wears a contrivance to support the knee-cap and limit the movements of the joint. The advantages claimed for the appliance are these:

1. As soon as the primary inflammation has subsided and the apparatus firmly and properly adjusted, the patient can begin to move about, and in a short time follow his usual business pursuits.

2. The long confinement to bed is avoided; thus the patient retains his health and strength, and the condition is more favorable to the repair of tissues.

3. Easy adjustment of fragments and the keeping of them in good position, without fear of slipping when the patient is walking.

4. The slight movement of knee in walking prevents a stiff joint, and keeps up sufficient activity in the parts to complete the union.—*The Lancet*, May 19, 1883.

WOOD-WOOL, A NEW SURGICAL DRESSING.—For the past six months PROF. PAUL BRUNS, of Tübingen, has been using a new material as a surgical dressing, which he calls "wood-wool," which is better and cheaper than gauze or wadding, and fully equal to oakum, tow, or turf. It is prepared antiseptically, in the same manner as the other dressings, though he prefers the sublimate wood-wool. After the wool is prepared and dried, it is impregnated with a one-half per cent. corrosive sublimate solution and ten per cent. of glycerine. Its capacity for absorbing is superior to that of any other dressing. After an operation, the wound is washed with the sublimate solution, one per cent.; then drainage-tubes are put in place, and the dressing completed by the application of wood-wool, covered with sublimate-disinfected gauze. Prof. Bruns has used this dressing in over one hundred operations, and is highly pleased with the results.—*Berliner klin. Wochensch.*, May 14, 1883.

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INSUFFLATION AND SWALLOWING SHOT IN ILEUS.—Pedrini has treated three cases of ileus, with well-marked symptoms of invagination of the bowels, obstinate constipation, stercoraceous vomiting, pain, etc., by making the patient swallow, after all other remedies had failed to give relief, five or six bullets, and five pounds of No. 3 shot; at the same time using prolonged and repeated insufflation of air by the rectum. The success in each case was complete, relief being quickly obtained, and the patient making a good recovery.—*London Medical Record*, May, 1883.

RELATION OF LIVER ABSCESS TO DYSENTERY.—SIR JOSEPH FAYRER thus summarizes the relation between abscess of the liver and dysentery:

1. The so-called abscesses which originate in local deaths of parenchyma (pyæmia, embolic deposits, or infarcts) are cavities varying in size from a mere speck to an orange, containing débris, sanies, puriform matter, leucocytes, and finally pus. They are seen in various stages of development, and are not necessarily confined to the liver, but occur in other viscera or regions of the body. These are truly pyæmic.

2. There is, I believe, a form of liver abscess coexistent with, and perhaps due to dysentery, which is the result of direct absorption and transference of pus or septic matter from the bowel to the liver through the mesenteric veins. Such may be solitary, double, or triple. This is also a very dangerous form of the disease, though not necessarily fatal, as it is feared must always be the case in the former variety.

3. Dysentery, malarial fever, and hepatitis may coexist, or supervene on each other as effects of common climatic cause; it seems natural to ascribe the liver abscess in such cases to the dysentery, but it is probable that they are rather coincidences than consequences of each other, and that the cause which affects the glandular structures of the large intestine may determine the mischief in the liver in certain climates and localities; such are obviously very different from those previously mentioned.

4. Lastly, I may just allude to the ordinary large and most frequently single tropical abscess, which is quite independent of dysentery, though, as just mentioned, it may coexist with or follow it. Each or all of these forms may be brought under our notice as the result of disease originally contracted in certain climates.—*The Lancet*, May 19, 1883.

CARCINO-SARCOMA OF THE UTERUS IN A CHILD.—PROF. ROSENSTEIN has recorded an example of alleged mixed sarcoma and carcinoma of the uterus in a child two years old. The child was taken to the doctor chiefly because it had not passed water for three days. On clinical examination a tumor of the belly was detected, which was partly due to a distended bladder. After 700 cubic centimetres of urine had been drawn off by means of a catheter, a tumor was still to be felt, which reached about three fingers' breadth above the pubic symphysis. The child died after it had been under observation for fourteen days. At the post-mortem examination the uterus was found to be closely adherent to the bladder, an irregularly rounded tumor was seen projecting above the apex of the bladder, and apparently springing from the right lateral wall of the uterus, which was tilted towards the left; this nodule extended for about an inch beyond the limits of the fundus. Another nodule the size of a walnut was seen to project from the left of the fundus. The greatest length of the uterus was about two inches and a half, its thickness, from before back, about one inch and a half. Microscopical examination showed in some places, between the bundles of muscular tissue a very fine alveolar stroma, packed with epithelioid cells of various shapes and sizes, and which contained one or more nuclei. In other parts the structure resembled that of a spindle-celled sarcoma.—*The Lancet*, May 19, 1883.

KAIRIN.—DR. HALLOPEAU gives an account of his investigations with regard to the antipyretic properties of hydrochlorate of kairin, introduced to notice by Prof. Filehne, of Erlangen. Its proper name is the methylhydrate of oxyquinoline ($C_{10}H_{13}NO$), being, like quinine, a derivative of quinoline. Prof. Filehne gives from five to eight grains (in a fever of medium intensity) every hour or hour and a half, the temperature becoming lower from a half to two degrees even after the first dose. After the third or fourth dose, it descends to the normal, or even lower, its fall being rapid in proportion to the dose, and accompanied by profuse sweating, which soon ceases if the temperature be maintained at the normal by new doses of the kairin. During the apyrexia, the patients experience a marked sense of comfort, the pulse recovering its normal frequency; but in order to maintain this state, the medicine has to be continued at the above-mentioned doses, or in grs. xv doses every two hours and a half, otherwise the fever returns as before. Dr. Hallopeau, from the few trials which he has made of this substance, quite confirms Prof. Filehne's statements, and comes to the conclusion that of all antipyretic agents, it is the one of which, at non-poisonous doses, the action is most certain, most powerful, and most rapid, and that it constitutes a precious resource in therapeutics, enabling us to counteract with certainty the dangers which hyperpyrexia in itself induces.—*Bull. de Thérap.*, March 30, 1883.

SASSAFRAS TEA IN RHUS POISONING.—DR. R. L. HINTON claims that sassafras tea is almost a specific for the rash of poison oak. The tea is an infusion of the bark (of the root) of the red sassafras. The affected parts are covered by compresses soaked in the cold infusion, while the warm tea is administered internally, sweetened or with milk.—*Medical Record*, April 14, 1883.

TREATMENT OF OZÆNA.—PROF. MASSEI says that if the mucous membrane is hypertrophied and the nasal cavity constricted, dilatation may be necessary. This is much better accomplished, as Massei recommends, by the douche of compressed air, simple or medicated, than by bougies. To cleanse the nasal cavities from the masses which encumber them, and to prepare the ground for other remedies, is the first indication. Weber's douche acts better than any other, and a simple alkaline or saline solution is better than astringents. Salt water or common salt dissolved in water (1 in 100) does very well. Afterward some antiseptic wash must be used. Massei prefers the following: salicylic acid grs. xvj, borax grs. xxxv, water Oj, with sufficient citrate of ammonia to dissolve the salicylic acid. He prefers the insufflation of powders or the application of ointments to pencilling with caustics. He finds calomel answer as well as any. If the exudation be thick and tenacious, and crusts form, ointments are preferable. He recommends inodorous iodoform, as in the following formula: iodoform, grs. xvj; balsam of Peru, grs. xxxv; vaseline, ʒv; the iodoform or balsam of Peru being mixed together before adding the vaseline—or borax and glycerine, 1 in 5. Inhalations of iodine may also be useful. The douche must be always used warm. Constitutional treatment must not be neglected. Iodide of iron and cod-liver oil should be given to scrofulous patients. Marine and sulphur baths are often of great service.—*London Med. Record*, May, 1883.

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SATURDAY, JUNE 9, 1883.

THE AMERICAN MEDICAL ASSOCIATION.

CLEVELAND, June 7, 1883.—The Cleveland meeting of the American Medical Association has been large, interesting, and successful. In saying this, we do not refer so much to the Addresses and papers presented, which, however, were fully up to the usual standard both in quantity and quality, as we do to the general harmony of opinion which prevailed with regard to the important questions of medical politics which were impending, and the progress made in ascertaining and defining the views of the profession of the country upon these subjects.

As regards the questions which have been raised respecting the Code of Ethics, it was soon evident that the feeling in favor of retaining intact the time-honored laws of the Association was so universal that it was useless to discuss the subject, and the strength of this feeling was indicated by the dignified silence which was almost universally maintained with regard to it.

Every registered delegate and permanent member complied with the requirements of the constitution by signing a declaration of approval of the regulations of the Association, including its Code of Ethics, and although a few at first objected to do this on the ground that it was a new and unauthorized requirement, their scruples vanished when they learned that it was no new thing, but only a return to an old rule.

The report of the Committee on the Journal was approved without serious objection or criticism. The general sentiment being that while it is a somewhat doubtful experiment, it is one that is worth making, and that no great harm can come of a year's trial of the new plan.

The selection of Dr. Austin Flint, Sr., for President, for the coming year, gives general satisfaction, and is an indication of the prevailing current of feeling, which is deep and strong.

We congratulate the Association and the profession upon the stand it has taken and the work it has done, and offer our best wishes for the success of its new undertaking (the journal), the first number of which is to appear within a month.

In another column we have the pleasure of laying before our readers a full report of the proceedings of Tuesday, Wednesday, and Thursday, received by telegraph from our special reporters.

HYDROPHOBIA.

A RECENT discussion on hydrophobia, before the Philadelphia County Medical Society, has freshened this perennial, if somewhat hackneyed, subject. Also, the approach of the "dog-days," associated in the popular mind with this dread disease, requires us to say, at least, that it is a popular fallacy to connect this season with a special susceptibility of the canine race to the peculiar poison of hydrophobia. If the season be not specially timely for the disease, the important etiological and pathological questions raised in Dr. Dulles' paper are always awaiting an answer. Some of these are the specificity of the poison; the absence of definitely related anatomical changes, and the existence of a neurosis having the same objective symptoms, due not to a special poison, but to the effect of a disordered imagination.

The existence of a special virus of hydrophobia must yet be regarded as *sub judice*, notwithstanding the number of facts which seem to prove the affirmative. The question of spontaneous origin of the poison is, also, much disputed. These points are best considered together in the brief space at our disposal for this discussion. It is first to be observed that in certain noxious reptiles there is a special apparatus — salivary — for producing a venom. The saliva of some men has a toxic activity when administered subcutaneously to certain animals. The normal constituents which may exert such an action are the ferment, *ptyalin*, and sulphocyanogen; possibly also the potash salts. Saliva, both in the human subject and in some animals, seems to be modified in its properties by

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profound emotional disturbance. There are apparently well-authenticated instances of hydrophobia caused by the bites of men inflicted in a state of intense and overpowering anger. That the saliva of healthy dogs may have a poison developed in it under circumstances of extreme anguish seems to be even less doubtful. Dogs confined, insufficiently supplied with food and water, and deprived of sexual gratification, have, there is reason to believe, become rabid. Again, a dog lost, pursued by evil-minded boys with shouts, and pelted with stones, without food or water, may, at length, as facts seem to indicate, grow distracted and vicious, and the saliva then acquire toxic properties. There are analogical changes in other secretions—the mother's milk, for example—which, under the influence of overmastering passion, may become actually poisonous. To the same category belong those poisons of an alkaloidal nature which are produced by the action of ferments in the course of infectious diseases. The most plausible theory is that which ascribes the toxic activity of the saliva to nervous (trophic) influence. Once acquired, it is probable that the poisonous principle becomes self-perpetuating, in accordance with the doctrine and laws of evolution.

It was held in the paper above referred to, and in the remarks of the principal speaker, who opened the discussion, that the morbid anatomy of hydrophobia is not sufficiently explicit to permit an accurate description. No reference, however, was made to the careful studies of Gowers, who goes so far as to affirm that "given the fact of an *acute* disease, a post-mortem diagnosis might, in the vast majority of cases, be made with certainty by the microscope." Benedikt, Coats, and others hold to the essential nature of the changes, also. The lesions which are regarded as characteristic are situated in the medulla (in the neighborhood of the respiratory centre) and in the salivary glands. These observations cannot, we think, be disposed of by mere negations. Not to find them, after a search guided by the requisite intelligence, is to place the case outside of the proper sphere of a malady produced by a specific poison. Under such circumstances, the malady becomes a mere neurosis.

Is there an affection presenting the objective signs and symptoms of hydrophobia produced merely by an all-absorbing mental and moral impression? We believe that the facts warrant the assumption that a neurosis, not distinguishable from the specific disorder in respect to its symptomatology, and frequently mistaken for it, really exists. The influence of the imagination in the production of morbid states is too well recognized to require statement here. A susceptible person receiving a bite or a scratch from a domestic animal, although free from disease, is ever after haunted with the fear of hydrophobia. Every detail connected with the disease is eagerly heard, treasured up in the memory, and gradually a complete picture of the malady is projected on the field of conscious impressions. Is it surprising, when some slight ailment disturbs the equanimity of the organic processes, that these realistic conceptions of hydrophobia should start up in vivid relief, and all the objective details of an attack, one by one, come to be realized in actual symptoms? That a fatal result should happen from a purely imaginary disease is by no means uncommon; but much depends on the locality of the seat of disturbance. A neurosis involving the functions of the medulla is vastly more important than one which is situated in the brachial plexus, for example. How can a mental impression, never so profound and all-pervading, stop the medulla oblongata functioning? Brown-Séquard would say "inhibition." When a powerful magnet is struck a tremendous blow, the magnetic property ceases on the instant. Similarly the spinal cord may cease to functionate. Still more pertinent is the ready physiological explanation. The paroxysms of hydrophobia require the evolution from the disordered centre of a large quantity of nervous force. No law is better established than that depression follows over-action, and that continued excitation must ultimately entirely exhaust the centre acted on. The more highly specialized the tissue in function, the more readily does it respond to irritation, and the more quickly are its powers exhausted. In these physiological facts do we have an adequate explanation of death due to a strictly functional neurosis.

In Dr. Dulles' paper and in the discussion which followed it, there was no suggestion of a remedy. Silence on this topic indicates the discouraging nature of the subject. The great clinical point—the separation of the specific infective prototype from the mimic disease—is the most fruitful field awaiting appropriate cultivation. We postpone to some more convenient season the consideration of the therapeutical questions connected with the management of this disease.

CHLOROFORMIZATION.

M. PAUL BERT has been engaged for several years in the study of the action of anæsthetic agents. The problem to which he has lately applied himself is to determine the physiological modifications due to the minimum and to the maximum quantity of vapor. By means of a suitable apparatus, the animal experimented on inhales the vapor during a period of ten hours. The quantity of vapor given may be less, or greater, than that necessary to induce an

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anæsthetic condition which is within the limits of safety. His results demonstrate the superiority of the method employed by some administrators—the method by which the anæsthetic state is promptly induced by a full supply of vapor, after which a minimum supply is furnished, but sufficient to maintain insensibility. A quantity which is quite insufficient to bring on the condition of anæsthesia will maintain it when once induced by larger doses.

We know of a uniformly successful chloroform administrator, whose use of the anæsthetic, at the beginning of the inhalation, seemed to be almost reckless. Dashing on to the towel-cone an ounce or more of chloroform, he brought the patient very promptly under its influence. In this practice the source of safety lies in the immediate suspension of the reflexes. As Bert's experiments show, the fall of temperature caused by anæsthetics is in a direct ratio to the duration of the inhalation, and the danger corresponds. The loss of body-heat is much greater with a small quantity of the anæsthetic slowly administered than with twice the quantity given rapidly.

The superiority of the rapid inhalation method then appears to consist in two safety-factors: in the prompt abolition of the reflexes; in the less quantity of heat lost. Experiment and experience here coincide. In such observations the presumption is that the heart is sound. Pathological states, especially a fatty condition of the heart muscle, and degenerative changes in the motor ganglia may confound the best considered rules based on observation and experiment merely.

SALICYLIC ACID IN SKIN DISEASES.

DR. RABITSCH has used with success, in some affections of the skin, an alcoholic solution of salicylic acid, having the strength of ten per cent. (10 parts of salicylic acid, 90 parts of alcohol). Sometimes the affected parts are merely sponged with this solution; in other instances, bandages, moistened with the solution, are applied. The cases thus treated consisted of herpes tonsurans, involving most of the scalp, the ears, and the neck, and large patches had formed on the thighs and limbs; of two of pityriasis versicolor, of two of eczema marginatum. Most of these cases appeared to be of long standing, and yet they yielded completely and, comparatively speaking, very rapidly to applications of the salicylic acid solution. Dr. Rabitsch prepares the parts for the treatment by the preliminary application of glycerine, followed by soap and water, to secure the detachment of crusts, and then the solution is freely used in the modes above described. How much of the result may be due to the alcohol, and how much to the salicylic acid, does not appear.

TREATMENT OF CORYZA BY THE SULPHATE OF ATROPINE.

A PHYSICIAN of Rheims, M. GENTILHOMME, has recently proposed the use of atropine as a remedy for *acute coryza*. He conceived this notion when reflecting on the power of this agent to arrest the secretions of the nasal mucous membrane. He appears to be unaware that this fact has long been known and frequently utilized in the treatment of affections of the broncho-pulmonary mucous membrane characterized by excessive secretion. Atropine frequently acts most efficiently in summer catarrh, in hay asthma, and in ordinary asthma accompanied by bronchorrhœa. Dr. Gentilhomme, only reiterates a fact, therefore, and has made no discovery. He has, however, rendered a service by freshening the professional recollection of a useful practice. The preparation employed may be a solution or a granule. The former is preferable since changes in the dose given is often necessary. If one grain of sulphate of atropine be dissolved in four drachms of water, two minims will contain $\frac{1}{120}$ grain, usually a sufficient dose to begin with.

THE ANATOMY BILL.

WE are very glad to learn that the Legislature of Pennsylvania has passed the new Anatomy Act substantially as drafted by the anatomists. The Governor has signed the bill, and it has now become a law.

As soon as we obtain a certified copy, we shall publish it in full for the information of our readers. It is, we believe, the most liberal and practical Act in this country, providing not only for obtaining and using material all over the State, but also an excellent plan for its equitable distribution. We hope other States will soon follow suit.

DR. RAUCH, the Secretary of the Illinois State Board of Health, has favored us with a copy of a letter addressed to him by one L. C. Washburn, President of the St. Louis Eclectic Medical College, in which the latter functionary characterizes the Board which Dr. Rauch represents as "dastard bigots and villains," of which Dr. Rauch is the "chief," because it refused to issue to those holding diplomas from said school, certificates permitting them to practice in Illinois. The letter is another one of those masterpieces of bad spelling and general illiteracy which are the expression of outbursts of rage on the part of those who seek to make a traffic of the issue of diplomas, when they are foiled in any of their efforts. The field of Illinois is cut away from them, and this angry wail goes forth malignant but harmless, as the expiring cry of a beast of prey. Would that every State would adopt a policy like that of Illinois.

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SOCIETY PROCEEDINGS.

THE AMERICAN MEDICAL ASSOCIATION.

Thirty-fourth Annual Meeting, held at Cleveland, Ohio, June 5, 6, 7, and 8, 1883.

(*By Telegraph.*)

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 5TH.—FIRST DAY.

GENERAL SESSION.

THE Association met in Case Hall, Cleveland, and was called to order at 10.30 A.M., by X. C. SCOTT, M.D., Chairman of the Committee of Arrangements.

The session was opened with prayer by the Right Reverend Richard Gilmour, Bishop of Cleveland.

The PRESIDENT, JOHN L. ATLEE, M.D., of Lancaster, Pa., was then introduced, and took the chair.

GENERAL EDWARD S. MEYER delivered an address of welcome.

The ex-presidents and vice-presidents of the Association were then invited to take seats on the platform. The appearance of Prof. S. D. Gross upon the stage, was hailed with prolonged applause.

The programme of the meeting was then announced.

THE REGISTRATION OF MEMBERS.

DR. X. C. SCOTT, *Chairman of the Committee of Arrangements* announced the reception of protests against the registration of members who had not signed the Code of Ethics, which with other protests were referred to the Judicial Council. The Chairman also announced that all delegates in registering, had been, or would be, required to sign a blank to the effect that "in acknowledgment of having adopted the Constitution and By-Laws and Code of Ethics of this body, and of my willingness to abide by them, and of my endeavors to carry into effect the objects of this Association, I hereunto affix my name."

Several delegates refused to sign this form, and were therefore not registered.

The SECRETARY then announced the reception of letters from a number of delegates, who for various reasons were prevented from being present.

The PRESIDENT, DR. JOHN L. ATLEE then delivered

THE ANNUAL ADDRESS

(see page 639), which was received with considerable applause, and the Association passed a vote of thanks for it.

THE OHIO STATE MEDICAL SOCIETY

in session in Cleveland, were, on motion, invited to become members of the Association by invitation.

DR. J. S. BILLINGS, U. S. A., presented a communication from the President of the British Medical Association and Dr. Mahomed, inviting coöperation with the committee of the Association on the

COLLECTIVE INVESTIGATION OF DISEASE.

Referred to the standing Committee on Atmospheric Conditions and their relations to the Prevalence of Disease.

DR. H. D. DIDAMA, of New York, presented a communication from Dr. Tyndale, of New York, containing a petition to Congress, the Secretary of War, and the Signal Service Department, requesting that a committee of five professional gentlemen be appointed to establish

CLIMATIC OBSERVATIONS

at the general health resorts and watering places, and to collect data in regard to the sanitary value of the localities in regard to pulmonary diseases.

THE LIST OF DELEGATES

registered was then read, and on motion, those names against which no protest had been received were confirmed.

The Association then adjourned.

In the evening the Association was entertained by the citizens and medical profession of Cleveland at a brilliant reception and banquet at the Euclid Avenue Opera House.

SECTION MEETINGS.

SECTION ON PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

The Section met at the Opera House, at 2.30 P.M., DR. J. H. HOLLISTER, of Illinois, *Chairman*, presiding.

DR. ROBERT D. MURRAY, of U. S. Marine-Hospital Service, read a paper on

YELLOW FEVER,

in which, from his experience gained in the treatment of cases during the epidemics of 1873, '75, '76, '78, and 1882, he protested against theoretical therapeusis. After the patient is once attacked, all attempts to arrest the fever will only be time lost. Free catharsis should be produced; mustard pediluvia used, free diaphoresis promoted by drinking lemonade, and nausea allayed by iced-porter. During convalescence, water or Catawba wine should be given. Whiskey he did not consider so good. He urged the importance of the recumbent position, and the avoidance of all muscular exertion.

DR. HENRY F. CAMPBELL, of Georgia, regarded yellow fever as an asthenic fever, and compared it to the type of our own malarial fevers, though he would by no means identify it with malarial fever, which comes from the malaria of our swamps, since yellow fever he believed to be caused by blood-poisoning. Bleeding he believed to be, in some cases, beneficial; but he thought it was often used injudiciously. He considered it important that the colon and stomach of the patient should be invariably emptied. For the constipation, he recommended the administration of oil. As yellow fever is a congestive disease, and as quinine lessens the tendency to congestion, he was in the habit of administering grs. xv–xx quinine by enema, with starch, but he did not recommend the large doses advised by some German authorities. Champagne, soda water, and Apollinaris proved acceptable. His results by this method of treatment were fairly good, but he had lost about half his patients.

DR. WM. MORROW BEACH, of Ohio, then read a paper on

MILK SICKNESS,

which he believed to be a disease *sui generis*. In his own county one-fourth of the pioneers died of it. The disease is limited to certain localities, as for instance, Ohio, Indiana, Illinois, and Michigan, and has probably never been seen in New England, and its existence as a specific disease has generally been disregarded. In the lower animals it is called the "trembles;" it attacks alike wild and domesticated animals. Drinking milk, or eating the products of milk from infected animals often gives the disease. The "trembles" is seldom met with in wet seasons. In prairies it is never seen. Animals may safely roam through infected districts, if they are corraled until the morning dew is dispelled. He accepted the theory that the disease is due to a microscopic fungus.

DR. ALONZO PALMER, of Michigan, considered the paper just read to be the best that had yet appeared on the subject, and suggested the desirability of the appointment of a committee for the minute investigation of the disease.

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SECTION OF OBSTETRICS AND DISEASES OF WOMEN

met at Frohsinn Hall, at 2.30 P.M., J. K. BARTLETT, M.D., of Wisconsin, *Chairman*, presiding.

On motion, J. A. JELKS, M.D., of Hot Springs, Arkansas, was chosen Secretary, in place of Dr. G. A. Moses, of Missouri, not present.

In the absence of DR. W. H. BYFORD, of Illinois, who was detained at home by professional duties, the Secretary read for him his paper entitled

CHRONIC INTRA-PELVIC INFLAMMATION.

The terms parametritis and perimetritis are erroneously supposed by many to include the whole subject of intra-pelvic inflammation. These terms are misleading, because, as now often used, they present to the mind the idea that all cases of inflammation not confined to the uterus must belong to one or another of them. Actual observation teaches the important fact that peri- and parametritis usually exist together, and are usually complicated with inflammation of the uterus, and not infrequently the ovaries and Fallopian tubes are involved. The obvious conditions of chronic parametritis are: 1. Suppuration and chronic pelvic abscess, located more frequently, but not always, in the broad ligament, and the consequence of cellulitis. The chronic pelvic abscess is generally the sequel of acute inflammation, and attains chronicity from imperfect evacuation of pus after acute inflammation has terminated in suppuration. The remedy in such cases is found in surgery, and consists in making a more direct outlet through the vagina, large enough to at once completely evacuate the pus, and enable the surgeon to cleanse and disinfect the cavity. He cited several cases in illustration of his remarks, and in closing he said that the main object that he had in writing this paper was to caution his associates against the danger of converting a chronic pelvic inflammation into a disastrous acute form. He gave the following summary of suggestions and inferences deducible from them.

1. The sometimes terrible effects of examinations or operations in the pelvis, do not often, if ever, take place when there is not a perceptible predisposing inflammation. 2. The inflammation may be so slight as to be easily overlooked. 3. It may be an original condition, the sequence of an acute attack long gone by, or it may be the product of some immediately previous examination or operation, the effects of which have not subsided. 4. To avoid the dangers of acute inflammation, we should, in making a first examination for pelvic disease, conduct it in such a way as not to give the patient much pain; and when she complains of much suffering, we should at once desist, even at the sacrifice of completeness of diagnosis. 5. Complaints of much tenderness to the touch, or from the use of instruments, is sufficiently diagnostic of inflammation upon which to base treatment for that condition. 6. If, with such tenderness, a thorough examination or an operation is imperative, it should be done under profound anæsthesia. There is no question in the author's mind that much less danger of ill-effects is incurred in making examinations or performing operations on susceptible subjects under the free use of anæsthetics. 7. Examinations or operations should not be repeated until the effects of the first have entirely subsided. 8. As chronic parametritis is a frequent complication of most of the morbid conditions of the uterus, it should be always suspected, and its diagnosis be carefully considered in all cases of metritis. 9. When chronic parametritis is present, it should be the chief, if not the exclusive object of treatment until removed. 10. It is not safe to use the sound, sponge-tent, or intra-uterine stem when there is perimetric inflammations. 11. It is especially dangerous to replace a displaced uterus when it is bound down by inflammatory adhesions, by any means which will overcome its fixedness by force. 12. The use of pessaries or supports of any kind which find their lodgement in the pelvis, is generally followed by disastrous consequences where there is even slight perimetric inflammation. 13. All local treatment of the uterus must be conducted with the greatest care where this complication is present.

DR. HENRY G. LANDIS, of Columbus, Ohio, read a paper on

POST-PARTUM POLYPOID TUMORS.

He said the physician is sometimes blamed for not completely delivering the placenta, when the real condition is due to other substances than placental tissue.

1. Blood polyps may form after delivery, consisting only of coagulated blood.

2. Blood polyps *may* be associated with retained fragments of placenta or membrane.

3. The same condition may occur with strips of decidua, prematurely detached.

4. The decidual membrane may undergo hypertrophy in places, giving rise to a sessile tumor of some magnitude and causing secondary hemorrhage, septicæmia, etc.

To the few cases on record the writer added the details of two cases observed by himself.

DR. JOHN MORRIS, of Maryland; Dr. Watkins, of Kentucky; and Dr. H. O. Marcy, of Massachusetts, cited similar cases.

DR. H. O. MARCY, of Mass., then read a paper on

THE RESTORATION OF THE PERINÆUM BY A NEW METHOD,

in which he claimed that the perineal body was an anatomical entity, and was the keystone in the arch of perineal support. Its physiological importance in parturition had been recently well demonstrated by Dr. Hart, of Edinburgh, and a thorough understanding of this would do much to lessen the frequent occurrence of perineal laceration. He presented a new method for repairing the perineum by the use of lateral support. This is accomplished by the use of wire of German silver, which possesses elasticity sufficient to make lateral tension, and the ends are so bent as to each form with the other, support; thus a kind of "safety-pin" holds the refreshened parts in position.

DR. R. S. SUTTON, of Pa., then read a paper entitled

ENTEROTOMY AS A COMPLICATION IN OVARIOTOMY OR OÖPHORECTOMY.

He cited two cases of removal of several inches of the small intestine, one by Prof. Billroth, and one by himself, both of which recovered. In his own case he successfully removed four inches of the small intestine a few months ago. This was stated to be the first successful operation of this kind ever performed in this country.

THE SECTION ON SURGERY AND ANATOMY

convened at Case Hall, at 2.30 P. M., the CHAIRMAN, W. F. PECK, M.D., of Iowa, presiding.

DR. REUBEN A. VANCE, of Ohio, read a paper on

THE RADICAL CURE OF HERNIA BY A NEW METHOD.

He said that the study of nature's method of curing an oblique inguinal hernia shows that there are two important processes at work. One a band of adventitious tissue about the neck of the sac, constantly tending to contract and close the abdominal opening at the inner ring; the other, the return to place of the two layers of the transversalis fascia, the separation of which originally permitted the viscera to protrude, and reunion of which forms a valve strong enough to prevent the recurrence of the hernial protrusion. Trusses favor a

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cure of the lesion. He then considered briefly the anatomy of oblique inguinal hernia, and the pathological processes in operation in such cases. He then described at length the method which he said had been very successful in his hands. He had operated on thirty-two cases by Dowell's method, and in nineteen cases the result, as far as the patient was concerned, was all that could be desired.

DR. FITCH, of Maine, asked the proportion of recoveries in his cases.

DR. VANCE replied that he could not tell how soon, if at all, the hernia might return in the nineteen cases, but he hoped to publish the details of all his cases at some future time.

DR. DUDLEY P. ALLEN, of Ohio, read a paper entitled

A COMPARISON OF ANTISEPTIC AND NON-ANTISEPTIC METHODS OF TREATMENT.

He said that it was beyond doubt, that in this country antiseptic methods are in less favor than a few years ago. This change seemed to depend to a certain extent upon favorable statistics produced by Mr. Keith and Mr. Tait in ovariotomy since they have given up the use of antiseptics. Mr. Keith, however, believes in the principles of antiseptics, but does not use the spray in operating upon the abdomen, because he fears poisoning. Everything coming in contact with wounds is cleansed thoroughly. The inference from Mr. Keith's practice would seem to be that in abdominal operations he considers the danger of infection from the atmosphere less than the danger of poisoning by carbolic spray. Dr. Allen described Mr. Lister's careful use of antiseptics; and the methods of Prof. Volkmann, of Halle, Saxony, and of Prof. Billroth. The antiseptic method may be grouped under one of three heads: 1st. The methods that prevent the entrance of germs to wounds as represented by Mr. Lister; 2d. The method of Volkmann, which washes them from a wound while it is exposed, and then so protects the wound by dressing as to prevent germs reaching it; 3d. The method of Billroth, which disregards the entrance of germs into wounds during the operation, and through the discharge during the process of healing, but destroys these evil influences by the presence of a powder that renders the wound continuously antiseptic.

In conclusion it would seem: 1. That the fact that operations on the abdominal cavity succeed without the spray does not influence the employment of antiseptics with regard to other operations where there is a continued opportunity for infection. 2. It would appear that the spray is the least important of all the details in antiseptic surgery, and that if the other details are attended to the proper dressing of wounds, pressure, and drainage, may, by securing absolute quiet for a wound, turn dangers into benefits. 3. That different methods are of different applicability, and that whereas the spray might be most desirable in opening joints, and in the atmosphere of hospitals, with bad hygienic surroundings, flooding might be equally efficient in certain other wounds, and that some prominent antiseptic, as iodoform, would be most serviceable when other antiseptics are inapplicable, as in the removal of the tongue. 4. That although there are certain dangers in the use of antiseptics, these are more than equalled by the dangers attendant upon their omission, especially in large hospitals, and that dangers of poisoning are certainly decreasing as the application of antiseptics is becoming better understood; and, further, that investigation may develop a method of securing antiseptic results less onerous and devoid of the disadvantages that now surround them. He summed up his paper by expressing the belief that the various antiseptic methods secured far better results than any other method.

DR. HENRY A. MARTIN, of Massachusetts, spoke strongly in opposition to antiseptic surgery in general, and Listerism in particular. He said Listerism was not cleanliness as has been claimed, but the killing of certain supposed germs. He had opened the knee-joint by aspiration in a large number of cases of synovial effusion of the knee without the use of the antiseptic method, and in no instance had there been the first indication of an approach of trouble.

DR. NANCREDE, of Philadelphia, spoke as strongly on the other side and predicted that the future surgery will be some modification, not of Listerian dressings, perhaps, but of the principles of Listerism, which we all use and say we do not. (Applause.)

DR. QUIMBY, of New Jersey, asserted most positively that the use of antiseptics strong enough to destroy germs in the atmosphere is likely to produce poisoning of the patient.

DR. MCCLURG, of Pennsylvania, said he was not particular to cleanse thoroughly his sutures, sponges, and instruments, and had never found any trouble from their use.

DR. GARCELON, of Maine, spoke against Listerism, and testified to a successful country practice without the use of antiseptics.

DR. MURDOCK, of Pennsylvania, favored antiseptic treatment, believing it to be the only proper treatment of wounds in general hospitals.

DR. WATSON, of New Jersey, earnestly advocated the principles and practice of Listerism. In cases of failure, the failure had not been the fault of the system or dressing, but had occurred through inattention to some of the details.

The next paper was by PROF. S. D. GROSS, of Philadelphia. The Chairman in introducing Dr. Gross said his paper had been written for the American Surgical Association and was to be its property, and it was only with this understanding that Prof. Gross had consented to read it here. Some of the delegates manifested a desire to discuss the paper, but the paper not being the property of the Association, debate was held not in order.

DR. HENRY A. MARTIN, of Massachusetts, next presented a paper of great length on the subject of

THE TREATMENT OF SYNOVIAL DISEASES BY A NEW METHOD,

illustrating the use of Martin's rubber bandage, and reciting many cases of its successful application in cases of synovial disease.

DR. GARCELON, of Maine, inquired if Dr. Martin recommended immobility of the joint or limb in the use of his bandage.

DR. MARTIN replied, "Oh no, sir, never; I invariably instruct the patient to use the limb, and demand that he shall walk a mile a day, and as much more as he pleases."

DR. E. M. MOORE, of New York, endorsed all that Dr. Martin had said in favor of the bandage, but said he had not found it successful in cases attended by pulpy degeneration of joints, these cases all occurring in childhood or early life.

DR. MARTIN said that in cases of periosteal disease the bandage was harmful.

The Section then adjourned.

SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY

met at the Board of Education rooms, at 2.30 P. M. On account of the absence, from sickness, of the Chairman, A. W. CALHOUN, M.D., of Ga., J. J. CHISOLM, M.D., of Maryland, was appointed Chairman.

DR. LAWRENCE TURNBULL, of Pa., read a paper on *Paralysis of the Facial Nerve in Connection with Diseases of the Ear.*

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DR. W. C. JARVIS, of New York, followed with a paper on *Tonsillotomy by Ecrasement*, and DR. CARL SEILER, of Pa., with one on the *Action of Nitrate of Silver on the Mucous Membrane of the Throat*, and DR. C. WILLIAMS, of St. Paul, with one on *Myringitis*, which was read by title on account of the absence of the author, and referred to the Committee of Publication.

SECTION ON DISEASES OF CHILDREN

met in Council Chamber, City Hall. In the absence of the CHAIRMAN, DR. R. F. BLOUNT, of Indiana, DR. C. W. EARLE, of Chicago, was called to the chair.

DR. C. W. EARLE read a paper on

CEPHALHÆMATOMA IN NEWBORN.

This he defined as a soft, elastic, fluctuating tumor, generally painless, and situated upon one of the cranial bones. He stated that it occurred with greater frequency than the literature of the subject would lead one to suppose. He had seen four cases in twelve years' practice, and contrary to the experience of other observers, all four were situated on the left parietal bone, whereas it is stated by some writers that in the majority of cases the tumors are on the right parietal bone, inasmuch as this bone is exposed to pressure by the rigid os uteri in the greatest number of deliveries. In the cases in the writer's practice, the tumor has not made its appearance immediately after birth, some three or four days usually elapsing before the writer's attention had been called to the difficulty. It has in a few cases been noticed upon both parietal bones, but not in the writer's practice. Prof. Byford, of Chicago, has observed at least one such case, and Jacobi and others mention cases of double cephalhæmatoma. When the tumor is first noticed it is a soft and painless enlargement. In the course of a few days a firm bony ridge is usually noticed surrounding the base of the tumor. The seat of effusion is between the bone and the periosteum, and the enlargement is caused by rupture of a bloodvessel; the bony ring is simply material thrown out from the periosteum to repair the injury. The author had noticed a little hard projection springing forward from the ridge, showing that the deposit of osseous material does not take place evenly in all directions; as the process of repair goes on the tumor loses its soft fluctuating feel, and in the course of a few weeks nothing can be detected except a slight want of symmetry in the two parietal bones. The most important question connected with the subject, the speaker said, was its diagnosis, and it appeared to him that there were four diseases with which it was likely to be confounded, namely: caput succedaneum, congenital encephalocele or hernia cerebri, erectile tumors, and cranial tabes. To show the distinction between these four diseases and the one under discussion the speaker said, the caput succedaneum is an œdematous condition, and it does not fluctuate, being only a disease of the scalp, cellular tissues, and bloodvessels; congenital encephalocele never occurs, with a possible exception, on the cranial bones; a vascular tumor has sometimes the same boggy feeling noticed in caput succedaneum, but it has no bony ridge; cranial tabes is the soft places found upon the cranial bones in rickety children. After fully considering the etiology, the author next considered the treatment, which in these cases really amounts to judicious letting alone, nature in the great majority of cases, cures the difficulty without aid from our art. A desire on the part of parents, however, exists to interfere, and the physician will be importuned to poultice, blister, open, and otherwise interfere with the processes nature is following to perfect a cure; some mild anodyne may be added. When tension is very great, or the tumor larger than usual, or when the child experiences considerable pain, it is better probably to open the tumor, cleanse out the cavity, dress it, so as nearly as possible to preclude suppuration.

DR. WILLIAM LEE, of Baltimore, did not see how cranial tabes could be confounded with cephalhæmatoma, as the former was scarcely ever seen in children. Although little or no interference might be necessary in most cases, still surgical interference becomes necessary in some.

DR. REID, of Cincinnati, had seen several such growths, and preferred leaving them alone.

DR. L. BOOTHBY in a practice of nine years, had seen several cases, and had insisted on leaving the growths alone.

Adjourned.

WEDNESDAY, JUNE 1ST.—SECOND DAY.

GENERAL SESSION.

THE PRESIDENT called the Association to order at 9.30 A. M., and prayer was offered by Rev. Charles S. Pomeroy, D.D.

DR. FOSTER PRATT, of Michigan, called up the

AMENDMENT TO THE CONSTITUTION,

offered by him two years ago, to the effect

"That the law requiring the nominations for officers to be made *from those members present at the annual meeting* shall apply only to the President, the Vice-presidents, Chairmen and Secretaries of Sections, the Assistant Secretary, the Chairman of the Committee of Arrangements, and the Judicial Council."

PROF. S. D. GROSS, of Pennsylvania, read a communication signed by himself, Dr. Austin Flint, Jr., and Dr. Oliver Wendell Holmes, urging upon the Association the importance of petitioning Congress to provide a suitable

FIRE-PROOF BUILDING FOR THE ARMY MEDICAL MUSEUM AND LIBRARY.

DR. H. A. JOHNSON, of Chicago, then presented a series of resolutions petitioning Congress to make an appropriation for such a building and for the completion of the Index Catalogue of the Library, and also for an annual appropriation of $10,000 to enable the librarian to purchase for the library, as they are published, all medical books of this country and the more important of Europe.

THE NOMINATING COMMITTEE

was announced as follows:

Alabama, W. O. Baldwin; *Arkansas*, D. A. Linthicum; *California*, C. H. Steele; *Connecticut*, T. Morton Hills; *Dakota*, J. S. Van Velson; *Delaware*, W. M. Marshall; *District of Columbia*, D. C. Patterson; *Georgia*, Eugene Foster; *Illinois*, C. T. Parks; *Indiana*, H. D. Wood; *Iowa*, W. S. Robertson; *Kentucky*, L. S. McMurtry; *Kansas*, W. L. Schenck; *Louisiana*, J. W. Dupree; *Maine*, A. J. Fuller; *Maryland*, J. J. Chisolm; *Massachusetts*, C. A. Savory; *Michigan*, F. K. Owen; *Missouri*, D. H. Gregory; *Nebraska*, V. H. Coffmann; *New Mexico*, W. R. Tipton; *North Carolina*, E. Grissom; *New Jersey*, B. A. Watson; *New York*, H. D. Didama; *Ohio*, Wm. M. Beach; *Pennsylvania*, S. D. Gross; *Rhode Island*, A. Ballou; *South Carolina*, R. A. Kinloch; *Tennessee*, D. J. Roberts; *Texas*, H. C. Ghent; *Virginia*, Alexander Harris; *W. Virginia*, J. M. Lazzell; *Wisconsin*, S. C. Johnson; *U. S. Army*, J. R. Smith; *U. S. Marine-Hospital Service*, T. W. Miller.

DR. N. S. DAVIS, of Illinois, Chairman of the Board of Trustees of

THE ASSOCIATION JOURNAL,

presented the annual report.

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After reading the resolutions adopted last year, instructing the Board of Trustees as to their duties, all of which were published in THE MEDICAL NEWS at the time, Dr. Davis read the conclusions at which the Board have arrived, after holding several meetings.

The Board consisted of Drs. N. S. Davis, of Chicago; E. M. Moore, of New York; J. M. Toner, of Washington; H. F. Campbell, of Georgia; J. H. Packard, of Philadelphia; L. Connor, of Michigan; P. O. Hooper, of Arkansas; A. Garcelon, of Maine; and L. S. McMurtry, of Kentucky.

A sufficient number of reports of the special committee of the Board, was prepared as soon as possible and sent to each member of the Board. A programme for a weekly medical journal containing an average of thirty-two double-column pages of reading matter, was agreed upon. Each number was to contain a department for original articles, embracing all such papers, addresses, reports, etc., as should be referred for publication by the Association, and such other original matter of value as might be contributed for that purpose. A department containing a summary of the progress in the various departments of medical science; an editorial department proper, especially devoted to the discussion of such topics as would be likely to aid in promoting the interests and efficiency of medical organizations, both National and State; a department of correspondence from the more important medical centres, domestic and foreign; and a department of miscellaneous items of intelligence, especially in relation to the doings of all medical and scientific societies in this country, and of such notices of the duties of committees, the presentation of papers, the practical working of associations, the time and place of meetings, as will greatly aid in rendering all the work of these bodies more systematic.

This done, the Board published forty thousand circulars containing the principal features of the plan of the object to be accomplished, together with forty thousand blank pledges of support of such journal if published, and mailed them to members of the profession in all the States and Territories. It required three-fourths of these to supply fourteen States, leaving only the remaining fourth for twenty-seven States. The comparison of returns from States well supplied and those not so well supplied indicates that an increase of twenty-five per cent. would have been realized if all the States had been supplied. As it is, two thousand one hundred and fifty answers have been received; twelve were direct expressions of opposition to the proposed change, thirty-eight were equivocal, while twenty-one hundred were unqualified pledges of support, either by prompt payment of the annual dues or by subscription.

By reference to the list of members, it was shown that 500 members had not answered, while nearly the same number not members have pledged their support. This makes the aggregate number of subscribers 2,500, as actual basis of income; supposing that these members who failed to reply will still continue their membership. This would indicate a revenue of $12,500.

It is deemed best to issue 3,500 copies weekly, in order to have a sufficient number of extra copies for all purposes, including sample copies. This number, on good paper, can be issued for $8,000 a year, leaving $4,500 for editorial work and current expenses of the Association. Advertisements in a journal reaching all parts of the country, as this one would, will probably bring $5,000 more, leaving a balance after paying $6,000 for editorial work. Bids have been received from two reliable printing establishments in Washington, three in Philadelphia, two in New York, and two in Chicago.

At a meeting, held at the Grand Pacific Hotel, Chicago, January 17, 1883, at which Drs. Toner, Packard, McMurtry, Davis, and Connor were present, it was unanimously decided to publish the journal.

The following resolutions were then adopted:

1. The editor is to take direct supervision of the work, and for business purposes should employ a clerk competent to assist in all business matters.

2. For assistance in editorial work he should select an assistant competent to collect and write up the progress being made in all departments of medical science, and should engage reliable correspondents.

3. He should establish correspondence with Secretaries or proper officers of all State medical societies, with view to procuring official and private contributions to its pages.

4. Through his clerks, he should solicit advertisements from all medical educational institutions and hospitals open for clinical instruction, book publishers, pharmaceutists, instrument-makers, and all other legitimate business interests; but all advertisements of proprietary, trade-mark, copyright, or patented medicines should be excluded (this announcement was received with loud applause). Neither should any advertisement be admitted with one or more names of members of the profession as endorsers, having their official titles or positions attached (renewed applause).

The publication was awarded to the firm of A. D. Newell & Co., of Chicago, and Chicago was chosen as the place of publication.

It is thus seen that the Board have complied with all the instructions given them.

At the conclusion of Dr. Davis' explanation of the work of the Trustees, the Association enthusiastically adopted the report, notwithstanding an attempt by Dr. Wyle, of Connecticut, to have the lengthy statement (which occupied nearly half an hour in delivery) printed during the night, distributed to the Association, and the whole matter brought up as the special order for Thursday, at ten o'clock.

DR. L. S. MCMURTRY, the Secretary of the Board of Trustees of the Association Journal, formally announced that the Board had unanimously elected Dr. N. S. Davis, of Chicago, as

THE EDITOR OF THE ASSOCIATION JOURNAL.

DR. DAVIS, in reply to this announcement, said: The announcement of my name to this position brings a duty upon me that has caused me more hesitation and has required of me a longer period of consideration to bring myself to the point of accepting the duties, than any other question of my life. When the question of journalizing the proceedings was first proposed, several years ago, by that Nestor of our profession, Prof. Samuel D. Gross, it struck me as an unsafe proceeding. When the question was again broached, a year or two later, still the bare mention of it, and the thought of the immense duties that such a position would enjoin upon whoever the Association should appoint to the great work, overcame me with the belief that such a project was impracticable. But the almost unanimous response that the project has received has made it seem to me, however, that, in the progress of time and the widening circle of events, the time has come when it is not only possible, but, considering the forces and influences involved in the present status of the profession, it is demanded that somebody shall assume the duty. For the Association must have a voice, through which it may reach, not only its own constituents, but a voice that may be an honor to our profession (applause), and extend from every ramification of our Society to countries on the other side of the ocean; and unless we do thus introduce some means, some journal of the Society, we must find the motions and resolutions which we make

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here from time to time laid away, eight months hence, somewhere on the shelves of libraries, with nothing left to indicate that they still have as strong an existence as when they were passed. With the full impression of the importance of the work, then, and keeping in view my life motto, that has been my guide for forty or fifty years of activity: "Whatsoever thy hand findeth to do, do it with all thy might, trusting to a Higher One for the result."

I have consented to assume the charge, but fair, fair as it looks and encouraging as have been the responses to these circulars from all quarters of the country, showing the project great favor, I must ask you, Gentlemen, not to expect to see at the end of thirty days or thirty months a complete journal free from faults. *The British Medical Journal* has been referred to as our model, but I beg you to remember that this journal required years of growth before it attained its present standing, and you must not expect too much of us in the first issues. Our arrangements are such now that we suppose the first number of the journal will reach you on or soon after July first, and if there should be any delay in its appearing, I beg you to remember that no man can prevent certain little occurrences which may cause a delay of a day or two, and I assure you that all I have to do will be done as honestly and as thoroughly as I am able, for if I have a few years longer to work for the profession and humanity, it is for these that I work. If I can see from this project an addition to the development of our National organization, or of its constituences in the State and local societies, and that they have a journal that is in some measure a fitting voice through which they may express their thoughts and record their proceedings, I shall complete my course of life fully satisfied that I have not lived in vain. I hope the Association in any action it may take during the remainder of this session may be cautious about doing many things, especially any thing that shall involve unnecessary expenses until we see how the balance sheets shall turn out at the end of another year.

I would now, in view of the position and duties assigned me by the Board of Trustees, respectfully resign my position on that Board, and I would announce that I have already obtained the conditional assent of Dr. Wm. Lee, of Washington City, to take charge of writing that most important branch, the progress of medical science throughout the world, well knowing that his opportunities in commanding an extensive range of medical literature admirably fit him for the position.

DR. SOLIS COHEN moved that the Board of Trustees be instructed to print in a thin octavo volume,

THE MINUTES

of the American Medical Association, as held. This form would be more acceptable to the profession, and would free the Journal of a great deal of uninteresting matter.

DR. HIBBERT, of Indiana, said it seemed to him unwise to encumber the Board with any more duties.

DR. QUIMBY, of New Jersey, said: I think the motion of Dr. Cohen a good and sensible suggestion, because it will not cost much to print the bulletin he proposes, and it will leave the Journal unemcumbered with a great amount of mere reports of little interest.

It was moved to refer this question to the Board of Trustees.

DR. QUIMBY said the Board of Trustees have nothing to do with the matter, and it is the duty of the Association to decide it.

He was ruled out of order, and the original motion was passed.

DR. BUSH, of Delaware, moved a

VOTE OF THANKS TO DR. DAVIS,

for his kindness and self-denial in accepting the duties imposed upon him.

THE EFFECT OF SIGNING THE CONSTITUTION.

DR. A. PALMER inquired whether those who signed the Constitution and Code of Ethics bound themselves to it by everything in the Constitution, or that may hereafter be placed in it.

THE SECRETARY replied that he was bound by everything now in the Constitution, but that anything hereafter placed therein must be signed before it is binding.

DR. J. H. HOLLISTER, of Illinois, Chairman of the Section on Practical Medicine, then delivered

THE ADDRESS IN MEDICINE

briefly as follows:

"In the development of medical science men have been compelled to grapple with some of the most difficult problems which can arise for investigation. Unlike other pursuits, Medicine has to wend her way with steps slow, uncertain, sometimes in truth, oftimes in error, ever conscious of her weakness, and of the mysteries that surround her on every side.

The matters of life and health have been the subject of investigation by some of the greatest minds that have ever lived, but causes of disease are so complex that the best of minds have been compelled to rely largely for them on suppositions. In the absence of positive knowledge, no man can lay a restraining hand upon the fancies and credulities of man, and medicine has been unfortunately a fruitful field, above all others, for suggestions, but the treasure-house of both has been slowly but surely garnered with the fruitage of truth, and the ages spent so blend together in their enfoldings that each seems but a link in the continuous chain of progress.

During the past year the labors of scientific men have not been without fruit. First we may congratulate ourselves that the year has been so prolific of trustworthy and active labors. Perhaps no year in the world's story has been so marked by original investigation. No mind can now afford to shine with borrowed light. The present army of workers seem rather a galaxy of stars, differing, it is true, in magnitude, but each ready to contribute his share to the light of science, ready ever to repudiate everything that has not been verified, and as ready to criticise and reject where data are insufficient. Such a spirit is yet destined to attain results which could never otherwise be attained. There is also a spirit of union in the labor of all countries. Neither is Germany, France, or England regardless when Italy speaks, nor is any portion of the old world regardless when the new world utters her voice. Literature is also receiving a new impulse. New and efficient contributors are coming to the front. All departments are having fuller and abler expression of their work.

Of course, some curious deformities are among the results, and they are growing more conspicuous. Journals with conspicuous names and bodies of extremely diminutive size are floated, in which manufacturers of proprietary remedies assume to direct the medical profession how medical journals are to be run. But there will be a counter-movement some of these days, and when it does come this unprecedented nuisance will be abated.

The advancement of the day is best shown by the fact that physicians now read more, think better, and practice with better success. At no time were there better investigations being made. Pathological research and physical diagnosis have reached the point that has been heretofore never attained. More than in any year before have the centres of intensest study been

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brought within the range of the microscope. In this new field, to which so many eyes are now turned, no man can longer speak as an authority who cannot with equal skill review the work of other men. Men yet differ vastly as to the interpretation of what they see, and new fields for investigation are being opened every day. Increased power has been given to the lens, so that the $\frac{1}{148000}$ of an inch and a fraction more is now within the limit of our vision. It is hard to say where the limits of human vision will fall in microscopy.

Two subjects demand more attention than any others at this time. One is the composition of the blood, and the other is the agency of microbes in blood. The third corpuscle in the blood has been described. It is now, by the way, pretty well established that Dr. Norris, of England, was its discoverer, and that the credit does not belong to Italy. Then some observers claim that a close reticular framework pervades every part of the blood-cell, while others say the reticulum depends upon defects in your lenses. Perfect these and the reticulum disappears; and I must confess I think the latter have the best ground.

Perhaps the most prominent man that confronts us is Robert Koch, formerly a little known practitioner, but now at the head of the Imperial Health Bureau of Berlin. His prominence is based upon his discovery of the bacillus tuberculosis. One very important question is:—Are these bacilli positive or concomitant? After numerous experiments by various observers, the proof remains very strong for accepting the germ theory of disease.

We now come to the question of the germicide treatment. The great question is not whether we can destroy bacteria, but whether the human organism will not first succumb to the agents used.

Dr. Hollister then spoke at some length of a more efficient means of elevating the standard of medical education. His plan is to have boards appointed, to be paid by the Government, who shall examine all applicants for the degree of M.D. Then in a few years let the State Boards of Health require that no one shall practise in the State who has not passed the examination of this board. The only opposition to this plan, he was confident, would be on the part of the few hundred professors in medical institutions, and if the measure were adopted, we should soon have none but the best schools remaining, while the standard of capability would be much elevated.

He also referred approvingly to a law recently passed in Italy, prohibiting the sale of any patented medicine until the ingredients were fully made known.

THE ADDRESS IN OBSTETRICS AND DISEASES OF WOMEN

by J. K. BARTLETT, M.D., of Wisconsin, Chairman of this Section, was then read, on account of impairment of the author's voice, by Dr. N. Senn, of Wisconsin.

The address dealt with the advancements recently made in operative gynecology, and the remarkable results thus obtained. He referred to how mere stitching of a lacerated cervix causes the most troublesome symptoms to immediately disappear. Bad results in Battey's operation have been obtained on account of the difficulty of making an accurate diagnosis in some cases of ovarian disease. He then referred to the recent discovery that many cases of vaginitis and other catarrhal conditions of the generative organs depend upon dropsy of the Fallopian tubes, caused in some cases by an antecedent pelvic peritonitis. Extra-uterine pregnancy, he said, is now robbed of its dangers, by destruction of the fœtus, in the early periods of gestation, by a galvanic current, not sufficient in strength, however, to cause rupture of the sac. The transfusion of blood, milk, and other nutritive fluids, of weak salt solutions, and of plain water were referred to, and good results in many cases reported. The author expressed the belief that the use of the forceps in the second stage of labor is becoming too common, and that many instructors encourage it. Referring to a new invention, by which a belt, passing around the waist of the accoucheur, is made to assist, he said, doubtless, in a few years, we will have an electro-motor engine of one-horse power invented, which will relieve the attendant, the mother, and the child, of any part in the procedure. The use of ergot in small doses during the second stage, he thought justifiable and proper in cases of uterine inertia, but full doses should not be given during labor. Lastly, he considered at length the subject of antisepsis.

THE COMMITTEE ON NECROLOGY,

DR. J. M. TONER, of Washington, Chairman, reported brief sketches of the lives of thirty-six members deceased since the last meeting.

The Nominating Committee then reported the following nominations of members of the

BOARD OF TRUSTEES OF THE JOURNAL,

to fill the positions occupied by those whose term expires this year, and one to fill the vacancy occasioned by the resignation of Dr. N. S. Davis: A. Garcelon, of Maine; J. O. Hooper, of Arkansas; L. S. McMurtry, of Kentucky; and J. H. Hollister, of Illinois.

THIRD DAY—JUNE 7TH.

GENERAL SESSION.

The Association was called to order at 9.30 A.M., and prayer was offered by the REV. DR. RULISON.

THE PRESIDENT announced that he had appointed

DELEGATES TO THE INTERNATIONAL MEDICAL CONGRESS,

to be held at Amsterdam, in 1883.

DR. KELLER, of Arkansas, called up his

AMENDMENT TO THE CONSTITUTION

offered last year, which provided that the designation of the time of the annual meeting shall be left to the Committee on Nominations, and not be limited, as heretofore to the first Tuesday in May or June. Adopted.

DR. BATCHELOR offered a resolution, which was adopted, that the President shall appoint one or more members from each State whose duty it shall be to secure by petition or otherwise the passage in their respective States, of more stringent laws respecting the

SALE OF POISONS.

DR. FOSTER PRATT, of Michigan, offered a resolution which had been adopted in the Section on State Medicine on the preceding day on the

DEATH OF DR. WM. FARR,

of England, wherein the Association recognized him as the founder and first tabulator of vital statistics, and placed on record its high appreciation of his services, and its deep regret at his death.

TRAINED NURSES.

DR. S. D. GROSS, of Philadelphia, offered a resolution, that in recognition of the necessity of trained nurses, and the benefit that has arisen from the establishment of training-schools for nurses in large cities, the Association recommends the establishment of similar schools in every county of each State, instruction to be given gratuitously, or at rates which would not exclude the poor from their benefits.

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DR. WALTER HAY, of Illinois, moved that a special

SECTION OF PSYCHOLOGICAL MEDICINE

be organized. Laid over for one year, in accordance with the rules.

The report of the Standing Committee on

ATMOSPHERIC CONDITIONS AND THEIR RELATIONS TO THE PREVALENCE OF DISEASES,

was presented by DR. N. S. DAVIS, *Chairman*. He stated that the work of the Committee was begun as quickly as possible after the last meeting. Observers had been appointed in twelve different parts of the United States, who received instructions to take accurate observations, during the day and night, of every day in the year, as well as to note the presence of any organic matter in the air. He then spoke of the necessity of continuing the observations through several years, and closed with a statement of the finances of the Committee.

The resolution offered by DR. DIDAMA, on the first day, for the taking of

CLIMATIC OBSERVATIONS

at the general health resorts and watering places, was then adopted.

DR. N. S. DAVIS, of Illinois, moved that Dr. Didama be elected the committee to carry out the objects of the above resolution. Adopted.

REVISION OF THE CODE OF ETHICS.

DR. S. POLLAK, of Missouri, offered a resolution on behalf of the St. Louis Medical Society, to the effect that whereas many of the provisions of the present Code of Ethics are obsolete, and that early revision is necessary, and no Society except the American Medical Association has any power to alter the present Code, but only to ask for its revision; therefore, that the American Medical Association be respectfully requested to appoint a committee of one member from each State, for the purpose of taking into consideration the propriety of revision of the Code of Ethics of the American Medical Association, and report thereon at the meeting of 1884. That this committee be authorized to propose a Code of Ethics, which in their opinion will meet the wishes of the profession, and to submit the same at the next annual meeting.

It was immediately moved and seconded by more than a hundred voices that these resolutions be laid upon the table, and the motion was carried almost unanimously, amidst loud applause.

THE READING OF PAPERS IN THE SECTIONS.

Dr. William Brodie, of Michigan, offered a resolution that no paper should be read in any of the Sections before it had received the approval of the Secretary of that Section. Laid on the table.

THE ADDRESS IN SURGERY

was then read by W. F. PECK, M. D., of Davenport, Iowa:

In performing the duties of Chairman of the Surgical Section, it is not deemed practicable to encompass all that the organic law of the Association may contemplate. For, in reporting on the progress made in surgical science, it is recognized that many theories are at present announced as facts which, when experience and demonstration shall have thoroughly tested, may be eliminated, to perhaps appear when the cycle of professional experience again completes its revolution. The greatest progress has been made in operative surgery, although other departments have been constantly endeavoring to add new light and obtain results to our already extensive accumulations. It is not claimed that large numbers of new operations have been originated and performed, but it is evident that the better understanding of pathological conditions has stimulated surgeons to establish a standard for operations hitherto ventured in rare and extreme instances. In Pathology, the microscopist has been active in trying to define and locate the germ cause of disease, since Cohnheim gave to the profession in a complete and formulated manner the character and importance of the colorless corpuscle in pathological changes. Strenuous efforts have been put forth by Pasteur, Koch, and others to unfold the importance of the bacterian germ which, according to the demonstrations of some well-known authorities, have a normal existence in the blood, lymph, and tissues of the body. Burdon Sanderson, Chauveau, Watson Cheyne, Billroth, and many others have adduced much information which certainly cannot do otherwise than benefit, even though a great modification of the bacterian theory is made necessary. Certain it is that during the year there has been developed a strong feeling in favor of Koch's views concerning the bacilli and their alleged tubercular relations. That these micro-germs exist there can be no longer any doubt. But whether they are the cause of the tubercle, or whether the tubercle develops *them*, their study has not made sufficient progress as yet to justify an unequivocal statement. In Prussia there is existing, under the leadership of Koch, a strong belief in favor of the bacilli being the cause of the deposit; while in Austria, Spina leads the opinion that the bacilli are produced *by* the tubercle, *or*, the associated conditions which originate the tubercular matter. If the following statement of Spina be true, then there is much uncertainty surrounding the whole theory of bacilli being the cause of tubercle: "I have examined about one hundred and fifty mesenteric and omental tubercle in the most various stages of their development, according to Koch's and Ehrlich's method, and found bacilli in *not one* case."

The surgeon is much interested in these investigations because of the important statements made by eminent teachers concerning the origin and nature of some forms of articular disease, also the peculiar degeneration which takes place in bone and glandular structures. The interest does not stop with these tissues, for underneath it all the "germ theory," which is thought by many excellent men to be the greatest of all causes in engendering infectious inflammations, pyæmia, septicæmia, abscess, gangrene, etc. etc., receives a support which, if conceded, will tend to give new and more efficient reasons for the use of antiseptic ism in practice. Now that so many able and relentless workers are seeking information which promises greater accuracy, it may be well to not claim too much for remedies which are given with the expectation that they shall ultimately reach the habitation of the noxious germ and there hold mortal combat, and win the victory, for further life in tissue which is threatened with decay and death. It cannot be admitted that practical surgery has thus far been directly benefited by Koch's views.

The condition of the problem of the management of wounds and other pathological processes by means of the so-called antiseptic methods suggests a move in the direction of greater confidence in the details of operative procedure, and scrutinizing attention in extreme cleanliness in the minutiæ of practice.

It is difficult, in fact impossible, to state with precision the exact deviation in the direction of, for or against, treatment of wounds by the different chemical agents during the past year. With many, the custom is to believe that antiseptic practice in surgery means the application of *carbolic acid*, in some form of attenuation, to the cut or exposed suppurating surface. Different surgeons have used different substances, but,

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according to the experience of Dr. A. T. Cabot, of Boston, upon detached dead tissue, it was found that carbolic acid acted more promptly than any other agent in arresting putrefaction and destroying micro-organisms connected with the changes of decomposition.

Within the year the antiseptic methods of wound manipulation have been regarded as embracing the spray, fixed and intimate relations of fresh surfaces, rest, pure air surroundings, and, when practicable, drainage.

It was stated by Thornton that the principal danger which surrounded opening of the abdomen was from the action of the vicious bacteria. And Spencer Wells' unprecedented(!) experience in ovariotomy is referred to by Marcy as furnishing almost incontrovertible evidence in favor of the antiseptic practice.

In this connection the experience of Mr. Lawson Tait, who reports one hundred successful ovariotomies with but three deaths (none of the antiseptic precautions having been regarded), should also be remembered by those who can only see progress and success in treating wounds on an anti-germ plan. Certainly the new experience of Billroth and Esmarch is commendable, and should be gratifying to those eminent operators. But it cannot be successfully argued that the lessened mortality was alone due to the use of antisepticism as practised by Lister. It will be immediately asked, how else can these alleged great changes in practice be explained, if everything that is used to keep a wound clean and to insure thorough drainage is called antiseptic practice? then no adequate explanation can be offered. Is not the experience of Mr. Keith as wonderful as the tabulations of the Vienna and Kiel surgeons?

The experience of the English surgeons on duty with the British troops in Africa, during the Zulu and Transvaal wars, was such that the antiseptic management of wounds was commented upon with but little favor after the records of those campaigns were finally submitted. The rather short campaign in Egypt was characterized by great dissatisfaction in the beginning of the war, but after the surgical management had become thoroughly organized and freed from abuses, observations were made by good men, who had only good reports to make of the antiseptic practice, which was very generally employed. While it is admitted that most of the leading surgeons of England are thoroughly wedded to the practice of antiseptic treatment of wounds, there are to be found not a few excellent teachers and operators who most reverently believe that nature, under wise assistance from the surgeon, will do more to save limb and life than the surgeon can do, who depends upon restricted antisepticism. The speaker has opened the abdomen in all forty-eight times; in forty-six instances for the removal of ovarian growths, once for an adherent ovary, and once for an intestinal obstruction. In the first fifteen cases there were six deaths. The operations were made under the spray, and the wounds were treated with a carbolic-acid solution. In the remaining thirty-one ovarian operations, also in the oöphorectomy and in the case of laparotomy, the spray was not employed. The last two mentioned cases recovered, and out of the ovariotomies there were four deaths. Has it occurred to those who are strong in their advocacy of the antiseptic treatment of wounds, that in the United States there are in active practice among the 52,000,000 of inhabitants about 86,000 medical men, a very large number of whom are treating wounds and pathological lesions? Also that many of the wonderful results accomplished by these numerous surgeons are wrought not by means of the spray and carbolic acid, but by the extraordinary care and attention which are given their cases.

Those who report their results in the periodicals are unfortunately few. Major operations are performed in apparently out-of-the-way places, and their results thus lost.

After referring to several new instruments, and the application of the electric light, the speaker referred to the legitimacy of bloodletting in inflammation.

Among the comparatively new operations, gastrostomy and laparatomy were fully referred to, and the details of several cases in practice were given. Referring to the results of these operations, the speaker asks: If the cancer, the cause of these operations, be due to a general cause, can the surgeon expect the patient to receive more than temporary relief from the operation? Will the aggregate life in successful cases be greater than those who die as the direct result of the disease? Experience has shown that after operative procedure, the aggregate life *is* longer than if the disease were left without treatment. Referring to neoplasms, the speaker stated that the venerable and universally honored Gross gave, in a paper before the late meeting of the American Surgical Association, the opinion that neoplastic additions to all tissues are the sequence of a previous injury. While perhaps this view is not original with the author, it is nevertheless an opinion of great value, coming, as it does, from an experience so ripe and comprehensive.

Professor Pietro Loreta's operations for stenosis of the pylorus, by stretching the stricture with the fingers, has resulted in two recoveries out of four operations, Dr. David Newman, of Glasgow, has performed the operation of nephrorrhaphy, it being the first operation made in England upon a woman for floating kidney; the renal capsule was stitched to the margins of the incision, and deep button-sutures were passed through the kidney substance, thus fixing the organ in its natural position. The patient recovered.

Dr. A. E. Baker's new operation for varicocele consists in separating the veins of the cord from the vas deferens, and then passing a needle threaded with twisted silk behind the veins, after which the veins are permitted to drop back when the needle is returned in front of the veins, which are thus secured in the loop of the ligature, through the original opening. The thread is then made tense, and the veins are brought close to the wall of the scrotum, and the ligature is well tied, cut close to the knot, and then allowed to return with the veins to the scrotal cavity. The results are such as to commend a further trial of the operation.

Important additions have been made to our surgical literature in monographs, revised editions of some of the leading text-books, and in America, the profession may be congratulated upon the appearance of two important volumes—one on anatomy and one on surgery. In the *Medical and Surgical History of the War* the world is now in possession of the most complete record of wounds and injuries resulting from war and battle that has ever been produced. Dr. Harrison Allen, of Philadelphia, has produced the major part of what promises to be when completed an excellent treatise on human anatomy, including its medical and surgical relations.

DR. FOSTER PRATT, *Chairman* of the Section, then delivered the

ADDRESS ON STATE MEDICINE.

He said that psychology, medical jurisprudence, and medical expert testimony have each received, during the past year, the attention to which they are entitled, but that there has been no noteworthy advance in any of these departments. Not more than fifteen years have passed since sanitary work was begun in the United States. Our advance may seem slow; but to-

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day, as we remember the advanced work of 1883, as compared with the beginnings of 1873, we must congratulate ourselves that so much has been done.

In reply to the question, What had been accomplished by sanitary science? he stated that sanitary organization and sanitary machinery have been largely developed. Sanitary conventions, societies, books, lectures, and discussions have gradually multiplied, clearly indicating an appreciation of the work, and a desire for more knowledge on the subject. The heating, lighting, and ventilation of our homes and other buildings have been improved; the influences which vitiate the air have been removed, or methods for their neutralization adopted. The causes of disease we find to depend largely upon fixed physical laws, and by the discovery of these we are able to prevent disease. In twenty-nine States sanitary organizations have been adopted, while eleven still refuse to make any provision for a State Board of Health, but ere long every State in the Union will fall into the line of advancement, and then a majority of States will demand a National Board of Health. What then will Congress do?

The isolation of contagious diseases has done much to prevent their spread. Dr. Pratt then referred to the admirable work done by the late Dr. Farr, of England, in originating the work of collecting vital statistics. He then gave a description of advanced methods of work in his own State, and including sanitary meetings at which papers on sanitary questions were read, by physicians, ministers, dentists, and ladies. He said that we owe much of our advancement to ladies. (Applause.) By recent improvements in sanitary science five per cent. has been added to male and eight per cent. to female life. Finally he insisted on the importance of careful isolation of all cases of all contagious diseases.

THE REPORTS OF THE TREASURER AND LIBRARIAN

were then read and accepted.

THE COMMITTEE OF PUBLICATION

reported that an index of all the volumes of Transactions was now in preparation, of which 1,500 copies would be issued, at a cost of $500, and would be sold to members at one dollar per volume. The report was received and adopted.

THE COMMITTEE ON NOMINATIONS

presented the following report, which was adopted:

President.—AUSTIN FLINT, SR., M.D., of New York.

Vice-Presidents.—R. A. KINLOCH, M.D., of Charleston, S. C.;

T. B. LESTER, M.D., of Kansas City, Mo.;

A. L. GIHON, M.D., of U. S. Navy; and

S. C. GORDON, M.D., of Portland, Maine.

Treasurer.—R. J. DUNGLISON, M.D., of Pa.

Librarian.—C. H. A. KLEINSCHMIDT, M.D., of Washington, D. C.

Place and Time of Meeting.—Washington, on the first Tuesday in May, 1884.

Chairman of Committee of Arrangements, A. Y. P. GARNETT, M.D., of Washington.

Assistant Secretary, D. W. PRENTISS, M.D., of Washington.

CHAIRMEN OF SECTIONS.

Practice of Medicine.—J. V. Shoemaker, of Pennsylvania.

Obstetrics.—T. A. Reamy, of Cincinnati.

Surgery.—C. T. Parks, of Illinois.

Ophthalmology.—J. J. Chisolm, of Baltimore.

Diseases of Children.—Wm. Lee, of Indiana.

State Medicine.—J. D. Roberts, of Tennessee.

Oral Surgery.—T. W. Brophy, of Illinois.

OHIO STATE MEDICAL SOCIETY.

Annual Meeting, held at Cleveland, June 5, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Ohio State Medical Society met at Frohsinn Hall, Cleveland. at 9.30 A.M., June 5, THE PRESIDENT, DR. LANDON, in the chair.

The address of welcome was delivered by Dr. A. C. Miller, of Cleveland.

The Committee of Arrangements, by its Chairman, Dr. R. A. Vance, of Cleveland, presented the following report, which was adopted:

The Committee of Arrangements recommend—

1. That a Committee be appointed to act in the absence of the Society. Thus members can pay up their dues, and applicants for membership file their papers, and all become members of the American Medical Association.

2. That the Society adjourn for one year, the old officers to hold over.

3. That we then adjourn.

On motion of DR. R. A. VANCE, it was voted that the President be permitted to publish his Annual Address.

On motion of DR. E. H. HYATT, it was voted that the Society meet at Columbus one year from date.

THE PRESIDENT appointed Drs. G. A. Collamore, W. B. Scranton, and E. H. Hyatt members of a committee to represent the Society.

On motion of DR. J. F. BALDWIN, the vote to hold the next meeting one year from date was reconsidered, and the committee just named was empowered to fix the date of next meeting.

On motion of DR. J. F. BALDWIN, amended by DR. J. W. RUSSELL, it was voted that no assessments be made for the next year, and that applicants for membership apply at once to the Committee on Admissions.

THE PRESIDENT appointed Dr. A. N. Reed *vice* Dr. W. H. Mussey, deceased, and Dr. J. O. Dawson, *vice* J. B. Thompson, absent, as members of the *Committee on Admissions.*

Adjourned.

AMERICAN SURGICAL ASSOCIATION.

Fourth Annual Session, held in Cincinnati, May 31, and June 1 and 2, 1883.

(Specially reported for THE MEDICAL NEWS.)

FIRST DAY, MAY 31ST.—MORNING SESSION.

THE PRESIDENT, SAMUEL D. GROSS, M.D., LL.D., D.C.L., called the Association to order at ten o'clock, and opened the proceedings with the following

ADDRESS:

Allow me, as your presiding officer, to congratulate you upon your safe arrival, and to extend to you a cordial welcome to the "Queen City," the centre of medical education in the "Buckeye State," the residence of eminent medical teachers and practitioners, and the repository of the ashes of great medical men, who, during their laborious lives, added lustre to the profession, and left behind them undying names.

We have come hither, not as pleasure-seekers, but as members of a great body of men bent upon earnest work in the interests of our great and noble calling. It is a source of rejoicing to me, as I am sure it is to you, that since our last meeting our ranks have not been invaded by the "Fell Destroyer." On that occasion it was my melancholy duty to announce to you the demise of four of our Fellows, all men of distinction, and of great usefulness. The meeting upon which we are about to enter cannot fail, if we may judge from our programme, to be one of unusual in-

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terest, and that our deliberations will be conducted with the celerity and harmony of feeling which have hitherto characterized it, I am safe in predicting. Allow me, in concluding this brief salutatory, to direct your attention to a proposed alteration of the constitution, to increase the number of Fellows from one hundred to one hundred and fifty. The change is an important one, and merits our serious consideration. I also respectfully suggest that the acting Council be increased from four to seven, so as to impart greater efficiency to its work. Finally, it appears to me wise to take action upon any proposed amendments of the constitution and by-laws on the last day of every session, instead of letting them lie over for one year, as now provided for.

DR. P. S. CONNER, *Chairman of the Local Committee*, next addressed a few words of welcome. He said:

Mr. President and Gentlemen of the Association: It is with pleasure that we welcome you to Cincinnati. We are exceedingly grateful, not only to have you come to our city, but to have so many of you with us. The Committee trusts that you may find things arranged with satisfaction, so far as the times of meeting, the order of the proceedings, and other appointments are concerned, and we desire that you may notify us of anything that is not satisfactory. We have only to hope that you may, in going from us, carry away with you as pleasing remembrances of the meeting, as we shall ever have of seeing you here.

GENERAL BUSINESS.

The SECRETARY, DR. J. R. WEIST, then read the minutes of the last meeting, which were adopted.

It was ordered that an additional member be added to the acting Council, and the President appointed Prof. E. M. Moore, of Rochester, New York.

THE TREASURER'S REPORT

was read by Dr. John H. Packard. It showed a deposit to the credit of the Association of $2,270.31.

The Council was instructed to take action on the applications for membership, there being now eleven vacancies.

The Secretary then read a communication from Dr. Willard Parker, of New York, accepting his election to membership in the Association

DR. C. B. NANCREDE, of Philadelphia, then read the first paper. His subject was

HAVE WE ANY THERAPEUTIC MEANS, AS PROVEN BY EXPERIMENT, WHICH DIRECTLY AFFECT THE LOCAL PROCESSES OF INFLAMMATION?

He said that, owing to the press of circumstances, he would limit his paper to the consideration of the early stages of inflammation. Careful study of the essential processes of various morbid conditions has often led to the theoretical employment of therapeutic measures, which by their apparent usefulness have encouraged their future employment. But if, in addition, we find that our *a priori* therapeutics, when experimentally applied in the case of animals, actually produce the precise effects we have theoretically aimed at, we can hardly go astray in confidently applying similar treatment to the human subject.

This paper is avowedly written in advocacy of bloodletting in general, but chiefly of the local abstraction of blood, for the pendulum of unreasoning prejudice and authority is now swinging slowly back to the opposite point.

He then reviewed briefly the minute processes of the earlier stages of inflammation.

Whether or not a primary contraction of the arteries occurs depends largely upon the irritant used. Certain it is that, at an early period, the arteries, normally one-sixth the size of the veins, far exceed them in size. The circulation is accelerated in the dilated vessels: the rate soon becomes normal, then slows, then an oscillatory motion occurs, a temporary stagnation, again a resumption of the flow, and finally permanent stasis. The obstruction consists entirely of red cells, closely packed. Free diapedesis of the white corpuscles then occurs from the excess of oxygen. That the primary acceleration of the blood-stream is in some way dependent on reflex nerve action seems clear.

A physiological point or two must be here considered. Ranvier shows us that the white blood-corpuscles become sluggish in the absence of oxygen, and *vice versa*. The red cells carry the oxygen. In stagnation of these, then, we must have an increased amœboid movement of the white cells and consequent migration. The author concluded, therefore, that a theoretically perfect remedy for incipient inflammation must comprehend the following effects:

It must lessen the vis-a-tergo; it must prevent such an ingress of blood into the affected part as will increase the quantity of oxygen; or it must so lessen the difficulty of escape on the venous side that a ready drainage of venous blood may occur. If possible, both results must occur, *i. e.*, increased frequency, with decreased force of the heart's action.

In his experiments of the frog's tongue, the first effect of localized bloodletting from a large vein on the distal side of a wound was an oscillation of blood-disks, then an occasional momentary flow, then suddenly a rapid resumption of the circulation.

All that was now needed was a corroboration of the results of Gensmer, who observed that the capillaries, after free bloodletting in an inflamed part, rapidly returned to their normal condition. He considers the antiphlogistic effect of local bloodletting due to a purely mechanical cause.

The effect of general bleeding, is to increase the water relatively, and decrease the red corpuscles of the blood; an increased rapidity with decreased force of the heart's action; this by relieving intravascular pressure, stasis, etc., prevents diapedesis of cells and exudation of blood-plasma.

But how about the evil effects of bloodletting? It is well known to the older practitioners that these are only temporary and easily repaired. For best results we should open a vein leading from the inflamed focus.

The author then summarized his views as follows:

1. During the stage of dilated arteries with increased rapidity of current, little danger of capillary changes need be apprehended. Here ergot, and perhaps arterial sedatives are useful.

2. After stasis, weakening of heart's action can do nothing.

3. The object desired is a removal of obstruction, diminution of force, increase of rapidity.

4. Arterial sedatives in the later stages are usually inadmissible, except as succedanea of bloodletting.

The discussion on this paper was spirited, and disclosed much difference of opinion. It was opened by DR. H. F. CAMPBELL, of Augusta, Georgia, who said that the "lost art," as bloodletting was characterized by our worthy President a few years ago, has for a number of years grown more and more into disfavor, until now it is almost a disgrace to us to bleed under any circumstances; and even local bloodletting has been laid aside. I do not bleed as much as I used to do, but as a professor of surgery in a university, I teach my students the use of the lancet, as carefully as I teach them the use of the knife, in cutting for stone or in any of the more brilliant operations.

We do not know all the conditions of inflammation. They are better described than defined. The conditions of heat, pain, redness, and swelling were recog-

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nized long ago, but now we recognize them as the symptoms of true inflammatory action due to the presence of too much blood in the part. What benefit is there in incision, cupping, leeches, and the application of cold, but to drive the blood out of the part? We put on a bandage and elevate the limb, in order to drain away the blood. All our practices are based on the one idea of too much blood in the part.

PROF. MOORE, of Rochester, N. Y., said that one great hindrance in the way of our using the lancet properly is the great difficulty in many cases of making a proper diagnosis.

He then related an epidemic of pneumonia which had, a good many years ago, occurred in his neighborhood. In it every patient was bled, and every patient without exception died, until in a consultation he proposed a change. He said, "let me stimulate instead of bleed." It was done, and at once the result was changed. He also related another epidemic of cerebro-spinal meningitis, in the early part of which the patients were all bled and all died. But a change was made, and quinine and stimulants employed, and the patients recovered. When this result was related to him, he expressed surprise and an incredulity as to the diagnosis. He was soon after called upon to make a post-mortem examination, when he found the spinal cord and brain bathed in pus. He at once profited by the experience, and was rewarded by seeing his patients recover.

PROF. POST, of New York, remarked that there are certain conditions with regard to inflammation in its very early stages that it is well for us to consider. One of the chief of these is the influence of position in hindering the access of arterial blood and in favoring the return of venous blood from the part. Practitioners are well acquainted with the importance of this. We cannot attach too much importance to gravity in the treatment of inflammation. Another important improvement in the early treatment is that of making equalized pressure on the part by bandaging, thus keeping the veins empty. He agreed with the author of the paper that bloodletting in the early stages of inflammation is of the greatest importance, provided there is no asthenic condition forbidding it.

He then related the history of a case in the Presbyterian Hospital, New York, whose head was injured. The patient was in a delirious state, so violent that he had to be bound. He was bled; the delirium vanished for three days, when the same remedy again gave relief. He then spoke of the action of bloodletting upon the puerperal condition, stating that it quieted the delirium, and that during the sleep which ensued, the disease was broken.

DR. KINLOCH, of Charleston, S. C., agreed with the statement that bloodletting is a great remedy for inflammation, but he admitted that it had often proved unsatisfactory in his hands. While local bloodletting abstracts blood from the part, it is doubtful whether it lessens the inflammation.

PROF. GUNN, of Chicago, asked attention to the fact that there is great difference between traumatic inflammation and inflammation due to other causes. There are undoubtedly cases of traumatic inflammation and of inflammation of the brain—a condition known as apoplexy, which has been greatly benefited by bloodletting.

PROF. BRIGGS, of Nashville, Tenn., agreed that there are conditions which call for bloodletting—cases of young, robust individuals with good habits. Bloodletting in such cases is a remedy yielding results which no other remedy will yield; but if it is not performed at the proper time, or in the proper manner, it is useless.

PROF. GREGORY, of St. Louis, stated his belief in bloodletting as one of the most rational means of treating inflammation. No one can dispute that we have in an inflamed part a local blood-pressure. Certainly, the most rational treatment of this is to take blood directly from this part. So far as we know of inflammation experimentally, it has but one object—that of repair—and as a rule, inflammations are advantageous, but we must endeavor to regulate them.

PROF. W. W. DAWSON, of Cincinnati, asked: If this is such a very great remedy, why have we abandoned it? Does the gentleman who so earnestly advocated its use bleed a patient once a year? I venture to say he does not.

DR. NANCREDE, in closing the discussion, called attention to a few points upon which his meaning had, to some extent, been mistaken; and he remarked also that we are too much afraid of the loss of the red blood-cells, and forget that their loss is so quickly replaced.

DR. B. A. WATSON, of Jersey City, N. J., then read a paper on

LISTER'S SYSTEM OF ASEPTIC WOUND-TREATMENT VERSUS ITS MODIFICATIONS.

Lister's treatment of wounds aims to secure the following conditions:

1. The continued exclusion from wounds of all living germs, or the prompt destruction of the same where they have gained admission, thus preserving in the wound a perfectly aseptic condition until it has healed.

2. Complete and uninterrupted approximation of the wound surfaces.

3. The avoidance of all irritation or any disturbance of the relation of the wounded parts.

Now does the Lister system fulfil these indications? He thought it must be admitted that it is possible to render *completely aseptic* nearly all wounds, and to preserve them in this condition during the reparative process by the means employed in the Lister treatment. Lister's is not an empirical method, but a complete system of practice based on scientific principles and facts, in which respect it differs to-day from all its so-called "modifications."

The value of this system of wound-treatment is shown by the fact that the old methods are no longer employed, except when modified or improved by engrafting upon them certain parts of the Lister treatment. In some instances, these modified forms of treatment aim to differ but little from the original, and are, as a rule, with the exception, perhaps, of the poultice dressing of Mr. Savory, based upon the principle of interference with the growth and fermentive action of bacteria.

The Listerian system is opposed entirely by those who have never practised it. Their chief argument against the practice appears to be based on the fact that in some instances organisms have been found under the so-called Lister dressing. The finding of these organisms has been often questioned, but never absolutely disproved. It may now, however, be boldly asserted that if they are found under these circumstances, they have certainly lost their power to produce septic infection. It is true, Mr. Keith and a few others have expressed a want of faith in the efficacy of the spray, while others prefer irrigation. The efficacy of the latter procedure cannot be questioned by those who admit the germicidal property of the carbolic acid solution of sufficient strength. But does not the spray deposit a continuous layer of the solution, rendering it impossible for germs to reach the wound without passing through the wet line, which is fatal to them? Is it not in fact irrigation?

We now come to the modifications: Dr. T. M. Markoe, while he shows himself satisfied with the results of the Lister treatment, prefers a modification

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of it. His plan, he tells us, consists "In the free and constant use of appropriate solutions of carbolic acid in water, no care being taken to keep the wound shut off from the influence of the atmosphere." He evidently aims his present efforts against the application of the germ theory to the treatment of wounds. But is not Dr. Markoe's theory of the action of carbolic acid exploded? The acid does exert a restraining influence on inflammation, but it neither prevents nor arrests it. I have examined, from these standpoints, not only Markoe's modification, but the most of those which have been proposed, and am now fully prepared to assent to the statement of Dr. J. Lucas Championniere, that "Perchance, in exceptionally favorable conditions, one may omit some parts of the dressing . . . but the *ensemble* of the method must remain," and "I assert more emphatically than ever that we can do no better than to remain faithful to the words of the master."

DR. JNO. H. PACKARD, of Philadelphia, stated that if he had correctly understood the essayist to state that the majority of surgeons in the United States are adherents to the Lister system, he must speak for the surgeons of Philadelphia, for, so far as he knew, none of them ever practised it. He believed they dragged on a miserable existence without it, but got along very well.

DR. POST made a similar statement in regard to the surgeons of New York.

DR. VANDERVEER stated that none of the surgeons of Albany or vicinity employed the system. He believed that thorough drainage was the important part of treatment.

DR. NANCREDE stated that he had returned to Listerism.

DR. CAMPBELL believed that carbolic acid retarded the process of inflammation through its action in retarding reflex nervous irritability rather than by its antiseptic powers.

DR. RICHARDSON, of New Orleans, stated that there is not a surgeon in his State who uses the Lister method.

DR. MCGRAW, of Detroit, related the case of a child that he had lost from the use of a two per cent. solution of carbolic acid.

DR. MASTIN, of Mobile, stated that the surgeons of Alabama never use the Lister method.

DR. PRINCE, of Illinois, said we could not be too thankful to Mr. Lister for calling attention to the importance of avoiding the contact of wounds with those agents which we know float in the air. The Lister system in detail, he considered too complicated. "If Listerism means the details of the process of dressing wounds, it is short-lived; if it means the principles involved, then it is immortal."

PROF. DAWSON, of Cincinnati, said that the great benefit we have derived from Mr. Lister's system is in its teaching us to enforce cleanliness. He doubted if we have gotten much of value from the practice of his methods; but he believed a great deal is due to Dr. Markoe in calling our attention to the importance of through and thorough drainage.

DR. WATSON remarked, in closing the discussion, that the gentlemen of the Association had shown the same willingness to misconstrue his statements that they had shown to the principles of the Listerian system. He had not stated that surgeons of the United States generally advocate the methods of Lister, but that the present surgical practice has been greatly modified by his principles.

AFTERNOON SESSION.

The first business of the afternoon session was the report of the Council on admissions. Eleven names were reported to fill vacancies. On motion, the balloting was deferred until to-morrow morning.

DR. JOHN H. PACKARD, of Philadelphia, then reported a case of

REAMPUTATION AT THE HIP-JOINT FOR OSTEO-MYELITIS.

On the sixth day hemorrhage took place, which was not controlled by pressure over the external iliac artery at the pelvic brim. The common iliac artery was therefore tied, and the patient recovered, the ligature separating on the twentieth day.

In connection with this case, a very similar one was mentioned, which occurred to Dr. Packard at the Beverly U. S. A. Hospital, in the winter of 1864–65.

Dr. Packard presented a "detached artery-needle," to be grasped with forceps; and made remarks upon the subject of ligation of arteries, and especially upon that of the common iliac. He also submitted a table embracing all the hitherto reported cases of ligation of this vessel not included in the tables already published.

DR. FIFIELD, of Boston, Mass., in opening the discussion, remarked that he did not doubt the very great skill and courage of Dr. Packard, displayed in this operation, but that if he understood the operation of Mr. Furneaux Jordan, he did not see the necessity for tying the common femoral or the abdominal trunk. He thought that all this might have been dispensed with in the one operation of Furneaux Jordan. He also stated that the old teachers of France taught their students to put the ligature around arteries by the sense of touch, with the eyes turned toward heaven.

DR. POST asked how we are to distinguish between the artery and vein by touch.

DR. CONNER, of Cincinnati, stated that he believed there are cases in which a modification of the operation of Furneaux Jordan does well, and he related a case which he had operated upon two years ago. In that case he had amputated at the junction of the middle and upper third of the thigh with the aid of Esmarch's bandage, and finding the condition of the medulla such as not to justify his leaving the bone, he made the lateral incision, having hemorrhage controlled by pressure, turned out the bone, tied the artery, and the patient recovered.

DR. PACKARD stated that his reason for ligating the femoral was that the idea of hemorrhage had occurred to him and he thought that was the safest means of avoiding it. The secondary hemorrhage did not come, as had been suggested, from the ligation of the femoral, but from a vessel deep down in the posterior flap, which he could not reach without endangering the femoral. He therefore, in the haste of the moment, ligated the primitive iliac, and had this ligature given way, he would have nevertheless done all that was in his power for his patient.

DR. RICHARDSON, of New Orleans, then read his paper on

ESMARCH'S BANDAGE APPLIED TO TRAUMATIC ANEURISM.

The paper was confined almost exclusively to the narration of a case, the important points of which were as follows: The patient received a shot-wound in the leg in October, 1876, followed by no serious hemorrhage. Eighteen months after, a tumor was observed. One year later, Esmarch's bandage was applied from the foot up to and beyond the tumor without, however, involving the tumor. This treatment failed, and the artery was ligated in July, 1879. Nearly eighteen months after ligation (Dec. 1881), thrombosis occurred and was followed by gangrene, necessitating amputation. Death occurred on the fourteenth day.

Dissection revealed an expansion of the artery to

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form the tumor. It was also discovered that ligation had failed to produce coagulation. There was no communication between the sac and the artery below. The arteries higher up had undergone no change. The femoral vein was smaller than usual and its walls were very much thickened. It was closely connected with the tumor, indeed, absolutely continuous with it, communicating with it by a well-defined orifice. It was occupied throughout by a firm clot.

The specimens exhibited by Dr. Richardson were referred to a special committee, consisting of Drs. Nancrede, Kinloch, and Dawson, and the discussion was postponed until the morning of the second day's session.

DR. RICHARDSON then read a second paper on

THE USE OF THE TREPHINE IN TRAUMATIC EMPYEMA ASSOCIATED WITH THORACIC FISTULA.

Chronic suppurative pleuritis with an imperfect fistulous outlet, external or bronchial, is not an uncommon result of gunshot or other penetrating wounds of the thorax. The resources of surgery have hitherto not offered much encouragement to the sufferers. The main difficulties encountered are—1st, Imperfect drainage, due chiefly to the approximation of the ribs, caused by the "sinking in" of the chest-walls. 2d, Permanent separation of the lung from the chest-wall by the contraction of false membrane upon its surface. The best method of effecting drainage is, then, what we seek. The effort to make an opening through one or more intercostal spaces, has been shown to be impracticable. The idea of trepanning or trephining the thorax is not new. It is said to have been proposed by Hippocrates, and in later times modified by others in idiopathic empyema.

The benefits derived from resection are threefold. 1. Unobstructed drainage. 2. Free scope for application of antiseptic remedies. 3. Shrinkage of the chest.

In cases where the pus is confined to the lower and lateral regions, the best method is the application of the trephine at or below the fistula. This method, as well as he could ascertain, originated in New Orleans, where it has since been frequently employed.

The author then narrated several cases in which the trephine was employed with good results.

DR. PRUITT, of St. Louis, related a case which had come under his care a few years ago. A woman with an opening in the thorax from an old empyema came to him complaining of fever and cough; her general health impaired. It was evident that drainage was not sufficient. He enlarged the opening. She improved at once. In a few months, she came back with the same symptoms as before. Pressure on the drainage-tube had, as Dr. Richardson has pointed out, narrowed its calibre. He again enlarged the opening; but some time after, a sudden change occurred, which he was at a loss to explain. During the dressing of the wound, while the cavity was being washed out with a weak solution of carbolic acid, she suddenly complained of pain, became comatose and pulseless. From that time on, all manipulation of the wound occasioned so great pain and difficulty of respiration that treatment had to be abandoned. Ulceration had doubtless occurred, and in all probability pus had entered the mediastinum.

DR. MEARS, of Philadelphia, called attention to his method of introducing a large tube into the cavity, where there was sufficient space between the ribs, by means of a large hernial needle. The needle, its eye armed with the drainage-tube was passed through an opening in an intercostal space, then carried down and out at a similar opening two spaces below. He had used the method in the case of a child eight years old and in a man of thirty-two.

DR. CAMPBELL thought that the trephine would be a difficult instrument to use in these cases, and expressed the belief that Hey's saw would be preferable.

DR. RICHARDSON explained that the trephine cut through very quickly on account of the softness of the rib, and that in its use the difficulty of holding the rib in position, that is always encountered in the application of the saw, is avoided.

The Association then adjourned to the amphitheatre of the Ohio Medical College to witness the demonstration, on the dead subject, of the operation reported by Dr. Packard.

SECOND DAY, JUNE 1ST.—MORNING SESSION.

The Association went into private executive session for the purpose of holding an

ELECTION OF FELLOWS.

The result was the election of Dr. N. P. Dandridge, of Cincinnati, O.; Dr. Christopher Fenger, of Chicago, Ill.; Dr. W. E. Taylor, of California; Dr. W. F. Peck, of Davenport, Iowa; and Dr. McCamm, of Pittsburg, Pa.

DR. S. D. GROSS then read a paper on

THE VALUE OF EARLY AND LATE OPERATIONS IN SURGERY.

(See page 643.)

PROF. POST, of New York, expressed much pleasure at the excellence of this paper, and remarked that there was one point in it which above all others merited the consideration of the Association, and that was the importance of removing early a large class of growths, such, for example, as warts, which are in themselves harmless, but are nevertheless exceedingly liable to undergo various degenerations, or even become malignant.

DR. GREGORY, of St. Louis, agreed with most of its conclusions. With regard to the propriety of an early operation in cases of malignant growths there could be no question. He then entered briefly into the pathology of the sarcoma and carcinoma. He said that, as we look through the microscope at the awkwardly shaped cells of a sarcoma, or at those large cells of a cancer, enclosed in their rough matrix, we could hardly conceive of their ever being carried away from their situation, and lodged in distant parts of the body. But there is a time in the history of these cells when they are smaller and round in shape, and theoretically we would be led to believe that this is the time at which migration would occur, and not later. We know, too, that the more nearly the tumor remains in this embryonic condition as to its structure, the more malignant it is. He wished, however, to differ from the preceptor in regard to some other growths, as in cystic disease of the ovary, in which he preferred a late operation, deferring it, indeed, until the condition of the patient absolutely demanded it.

DR. BASIL NORRIS, U. S. A., in a paper on

DISLOCATIONS OF THE ASTRAGALUS,

said there is reason to believe that partial dislocation of the astragalus sometimes escapes notice. There is hardly a surgeon, he thought, who will not recall a doubtful case of badly sprained ankle, on reading over the cases of partial dislocation of the astragalus to be found among the selected cases herein reported.

An old-fashioned method of reducing a partial dislocation of the astragalus, was related to the writer by a German from the Fatherland. When a boy, he severely injured his ankle while running across a fallow field. The joint was extremely painful, as he well remembered, and was treated as a sprain. It grew worse, and was much swollen, when by good-fortune, a neighbor—and as usual, an old woman—advised him to place a brick-bat upon the foot, then to swing it

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back and forth two or three times and sling the brick as far as possible. By this means the foot was jerked forward, and he was suddenly relieved.

The paper contained also the narration of a case of complete dislocation, as it happened to the speaker personally.

DR. BONTECOU, of Troy, N. Y., related a case which happened to him about thirty-five years ago, in which every possible effort on the part of force and manipulation, failed to reduce a dislocated astragalus, and he was compelled, finally, to give up the case, and allow the foot to remain in the condition in which he found it. He meets him daily, and it reminds him, as he expressed it, of his inefficiency at that time. If he encountered such a case now, he would lay all the tissues open on the outer side, restore the dislocated bone to its place, and replace the soft parts.

DR. GREGORY, of St. Louis, reported the case of a female, injured by an accident to a carriage. The astragalus was dislocated forwards and downwards. The only remarkable feature of the case, he said, was the ease with which the bone was replaced.

DR. MOORE said he was convinced that there was a little looseness in the views of surgeons in regard to this matter. It has been taught that we should exsect where there is dislocation of this bone, because it would certainly have to be done sooner or later. He thought that there were cases in which this must be done, but in many cases it is not necessary. He had seen a case a few years ago, in which the reduction was exceedingly difficult, but where it finally succeeded. He had also seen two cases in which, in addition to the dislocation, the astragalus had been split in two. In one case, one part of the bone was driven backward, so as to appear under the tendo Achillis. In the case of a woman who came under his observation, he had employed force in every direction; in his determination to restore the bone, but without success, when suddenly, under the slightest manipulation, the bone slipped into its place. But it almost instantly popped out, and continued to do so. But suppuration did not occur, and recovery was fair, with a little lameness. He met another similar case and he did nothing with it.

PROF. DAWSON, of Cincinnati, thought it would be a long time before Dr. Gregory would encounter another case in which the reduction would be "easy," as in the one he had related. He then related a case that had occurred to him in his early days of practice, where reduction could not be effected and he was not allowed to operate. The man, however, became able to walk with comparative comfort.

DR. GUNN, of Chicago, stated that it had not been his fortune to meet with a complete dislocation of the astragalus. He related a case, however, in which he resorted at once (seeing the case as a secondary one) to excision. It was a complete dislocation outward of the head of the bone. There was no necrosis. There was sufficient vascular activity in the part to prevent its occurrence. The case is of interest also with reference to the importance of primary or secondary incision. Here was a head that had retained its vitality for three months. He thought that had primary incision been made, restoration might have been accomplished. It was, however, only after a good deal of pressure had been exerted for several weeks that the shape of the foot was restored; but it became a good foot for locomotion after all.

A number of years ago, during a visit of the speaker to the country, he was shown a portion of an astragalus which had been removed from the foot so recently that evidences of blood still remained upon it. Upon examination and inquiry it proved to be the body of an astragalus which had been fractured at the neck by a fall, the individual striking on the foot, and so torn from its attachments that the surgeon simply removed it with his fingers. He then placed the bone in its proper position and the patient made a good recovery.

DR. MOORE remarked, the really interesting part of this question is how we are to treat those cases that can be reduced—whether they are to be removed at once or subsequently? Good authority, as has been said here, says to remove them at once; but good authority also says wait. I believe President Gross says immediate removal. I believe it is better to remove them early than to wait. If we remove them early, the question is whether it would not be well to extend the operation sufficiently far to enable us to see the relation of the parts and to replace them, then treating the case as one of compound fracture.

DR. NORRIS, in closing the discussion, remarked that the last case which he had reported tended to show that simple manipulation is of more importance than either force or extension. The case was a compound dislocation, which had resisted all efforts, but when, after placing the foot on a pillow, a little manipulation with the fingers was applied, an unexpected restoration of the bone occurred.

DR. P. S. CONNER, of Cincinnati, then read a paper on

EXCISIONS OF THE TARSUS.

Admirably adapted as is the foot to sustain weight, diffuse force, and secure ease and quickness of movement, it is peculiarly liable to disease and the extension of inflammation; subjected as it is to violent jars and severe twists, every opportunity is afforded for blood-extravasations in its bones and traumatic synovitis in its joints. In those subject to strumous affections, slight injuries are liable to be followed by simple inflammation or the deposit of tubercle. Specific periostitis or gumma, may produce the same effect here as elsewhere; and caries and necrosis may follow injuries to the part. Little wonder is it then that tarsal disease is of frequent occurrence, or that it at times affects a large portion of this section of the foot. What shall be done for its relief? Rest, compression, stimulant or sedative applications, always proper at first are likely to fail, and the disease goes on to the destruction of the part. Surgical treatment is then limited to—1. Opening the abscess and the removal of carious or necrosed tissue; 2. Amputation; 3. The methodical excision of the affected bones. Of these methods, amputation is generally preferred, because less likely, it is claimed, to be followed by septic infection.

There have been reported, however, a number of cases from the results of which the speaker feels called upon to reconsider the alleged dangers and disadvantages of attempts to remove only the diseased portions. He therefore tabulates one hundred and six excisions of two or more bones, several of which came under his own care. Nos. 1 and 2 of the table, are cases in which he removed the entire tarsus, all the bones being carious. The operations were followed by little constitutional disturbance, and left the patients several months after with useful limbs. The good result of these cases the speaker believed to be due to more than surgical good-fortune. Three questions must be answered in regard to the practicability of the operation: 1. Is it safe or at least attended by no greater mortality than amputation? 2. Is it likely to put an end to the disease? 3. Will the patient recover with a serviceable limb? The mortality from excision as revealed by the table compares so favorably with that of amputations in this region, that the author is led to the conclusion that, as respects the preservation of life, excision of the whole tarsus or of one of its great divisions is not much, if any, more dangerous than an ankle-joint amputation. That the disease is

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very unlikely to reappear is shown by the fact, that in only two cases did such recurrence take place; but on the contrary, in a very large proportion of cases, the result was so good that the gait was fair, the support of the body firm, and locomotion easy. Motion at the ankle is generally good, and shortening of the limb but slight. No rule for operating can be laid down. Usually the lateral incision, while it renders the excision more difficult, is followed by better ultimate results than the dorsal incision. In conclusion, the speaker said: "I cannot but feel that enough has already been done by English, Continental, and American surgeons to show that the generally received opinion, that extensive tarsal disease necessitates amputation is an incorrect one; or, at least, one that requires and should have reconsideration."

THE PRESIDENT remarked that the paper just read was so comprehensive and so concise that there could scarcely be any discussion upon it. The silence of the members apparently indicated their coincidence with his opinion.

The next paper was read by DR. S. MARKS, of Milwaukee, Wisconsin, and was entitled

TREPHINING OF THE STERNUM FOR THE REMOVAL OF A FOREIGN BODY, WITH THE REPORT OF A CASE.

The paper began with the narration of a case: A soldier, Captain B., was wounded in one of the battles of the Wilderness, May 10, 1864, while in the act of rising from a recumbent posture. He was struck at a point a little above the centre of the breast-bone. The force of the ball knocked him down, but he soon arose, and walked to the rear, where he was examined by the field-surgeon, and was told that he had been struck by a spent ball, and but little injured. He, however, suffered intense pain; the action of the heart was disturbed, and the difficulty of breathing was so great as to compel him always to maintain the erect posture. He was removed to the hospital of Fredericksburg, Va., where the diagnosis was confirmed. On the fourth day, a discharge of pus gave him relief. He went to a hospital in Washington, D.C., and here many surgeons confirmed the original diagnosis, He improved so as to be able to leave the hospital.

In October, 1870, he consulted the author of the paper. Upon examination of his wound, a small spot of denuded bone was detected, and, finally, the probe passed entirely through the sternum. An improvised probe, tipped with a small portion of the stem of a clay pipe, was introduced and rotated against an obstruction supposed to be a bullet, and when removed it gave unmistakable evidence of lead.

October 15th, assisted by Drs. O. P. Wolcott, E. W. Bartlett, and Wm. Thorndike, the trephine was applied over the location of the bullet, and, after enlarging the opening with the same instrument, the bullet was extracted. The latter was wrapped in a strong cyst. The opening revealed the pulsation in the pericardium beneath. From that time on, the recovery of the patient was steady. A slight accident which caused a considerable flow of blood from the wound, during the process of its healing, rather accelerated the recovery than otherwise.

The author considers the operation of trephining the sternum for the removal of foreign bodies a new one. It is spoken of by various authors as a method of removing diseased bone, or for the evacuation of matter contained in the mediastinum, but not for the removal of foreign bodies.

DR. POST inquired whether the author of the paper considered the rapid recovery which followed the accident to be due to the loss of blood which occurred at the time.

DR. MARKS replied that he, at that time, attributed it to this occurence.

AFTERNOON SESSION.

DR. E. M. MOORE, of Rochester, N. Y., presented a paper on

SOME QUESTIONS WITH REFERENCE TO INTRA-CAPSULAR FRACTURE OF THE FEMUR.

The questions and the views which the author had formed upon them as a result of long experience may be summarized thus:

1. Is not the cause of fracture of the neck of the thigh-bone, whether intra- or extra-capsular, almost uniformly that of a blow upon the trochanter?

The writer insists upon this statement, in contradiction to the views of Sir Astley Cooper, and also that the cases of fracture either by muscular exertion alone, or by falls upon the knee, or a misstep with direct force transmitted through the bones of the limb, are too rare to be the grounds for any diagnosis.

2. Is not the preservation of the periosteum of the neck called, in connection with the reflected capsule, the cervical ligament, although only partial, the common rule, and not the exception?

This statement was confirmed by the exhibition of three specimens of recent fractures—one of three days, one of five days, and one of eight days after the injury. These were all the writer had ever seen, and were all of the same condition.

3. Does not this condition, if preserved, supply abundant nutrition to the upper fragment sufficient for entire repair?

This question is asked in reply to the opinion that the nutrition in intra-capsular fracture must depend upon the small circulation of the ligamentous tissues. If the cervical ligament remains in even a small part, there cannot be any deficiency of nutriment.

4. Is not the outer layer of what is called the periosteum of the neck, a rudimentary organ?

This opinion is defended on account of the uniform rise of the capsule from the edge of the articulations. The general law is interfered with by the length of the neck of the bone. Nature has laid down firmly on the periosteum, but retains the primary thought.

5. In reputed cases of absorption of the neck after blows upon the trochanter, said to be without fracture, is it a reasonable, much less a perfect induction, to infer a similar result, when the changes of condition are similar only in one point, and dissimilar in every other, from those cases of inflammation without a blow.

This was proved by the exhibition of cases of recent fracture.

6. Should not the induction read thus: The head of the femur and the acetabulum, not being altered, the shortening of the neck could not be from the inflammation resulting from the blow?

7. Finally, does not the practice of modern surgery produce a vastly improved result, in cases reported, as compared with the methods of the last generation?

DR. N. SENN, of Milwaukee, then read his paper on

FRACTURE OF THE NECK OF THE FEMUR, WITH SPECIAL REFERENCE TO BONY UNION AFTER INTRA-CAPSULAR FRACTURE.

This paper was founded largely upon the original investigations and experiments of its author. The experiments were made upon small animals; as a rule, chiefly upon cats. The necks of the femurs of these were broken by means of various devices, sometimes by mere force, at others by drilling, the aim always being to get within the attachment of the capsular ligament. The fractures were then treated, and allowed to remain a varying length of time, when the

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animal was killed and examined. The fractures were made with a view to each of the various forms of the accident met with in the human subject. The speaker claims that, contrary to the statements of so many, we do have bony union in intra-capsular fracture; and in support of this view he not only appealed to a large number of specimens from cats, but presented also a femur from the human subject, in which he claimed to have obtained firm bony union. The remarkable feature of the case he presented was that the individual from whom it was taken had been a very old person, in whom, according to the view of many, such union is an impossibility. The specimen, the author stated, was presented at the close of last year's session by a Fellow of the Association in his absence, and as he had been informed that some doubt was expressed in the discussion as to the fact of its being true bony union, he had since that time taken the precaution. after having the specimen photographed, to boil it, This process gave no evidence whatever of any ligamentous tissue, and the author now considered the fact of its being true bony union established.

The treatment recommended was to render the adjacent joint immobile by the plaster-of-Paris dressing. The point most insisted upon was the importance of carrying the dressing well up over the pelvis, and down almost to the knee. He also considered antiseptic precautions in putting on the dressing of importance. If necessary, a light splint might be included in the dressing.

THE PRESIDENT, before calling for the discussion of the subject, expressed his gratitude to the author for the excellent paper, and his gratification at the thorough manner in which the author had pursued his investigations.

DR. BONTECOU said that he had understood Dr. Moore to state that all the cases of fracture of the neck of the femur that had come under his observation had been produced by a fall upon the trochanter. He, on the other hand, had made a post-mortem examination in two cases in which the fracture had been produced by simply twisting the limb while the foot was resting on the floor.

DR. POST called attention to the importance of not carrying our examinations too far in cases of suspected fracture of the neck, simply for the sake of making a positive diagnosis; and he related a case which had come under his observation, in one of the New York hospitals, where such anxiety for a positive diagnosis had resulted in the loosening-up of an impaction, and consequent non-union.

DR. GUNN called the attention of the Association to a case which occurred a number of years ago in the surgical section of the American Medical Association, which many would remember. A Dr. Royer requested that a committee be appointed to measure his limb to estimate the result of a fracture of the neck of the femur five or six years before. The measurement showed shortening of from two to two and a half inches. The speaker had personal knowledge of the patient at the time of injury, and remembered that the shortening was then very slight, not more than half an inch. The case, he thought, spoke very strongly for interstitial absorption.

DR. VANDERVEER narrated the experience of himself and a friend, Dr. Beach, who had procured a specimen in which they were positive that they recognized bony union of an intra-capsular fracture occurring in a young subject. They not having time to superintend the preparation of the specimen, it was boiled longer than they desired, and they found before them a characteristic specimen of ligamentous union.

DR. FIFIELD recognized in the splint presented by Dr. Senn an old friend, long forgotten. He had known it as "Marchand's spear," and had seen this gentleman use it in the Hôpital Saint Louis, Paris. He was of the opinion that fractures of the neck could be treated just as well without such extensive appliances. Position and rest are, in fact, all that is required. Mechanical appliances are passing out of date. Dr. Allis, of Philadelphia, he said, has shown us that we need nothing more than pasteboard in the treatment of fracture.

In regard to the interstitial absorption about the seat of fracture, the speaker remembered a specimen he had seen in Paris in which, two weeks after the fracture of the neck, not a vestige of the head of the bone could be seen.

DR. NANCREDE called attention to the impossibility of knowing whether a case was one of intra or extra-capsular fracture after the capsule had been removed, because, he stated, of the variability seen in the attachment of the capsule.

THE PRESIDENT, upon examining the specimen of "bony union" presented by Dr. Senn, remarked that there could not have been a fracture of that bone, or else it had been treated by a surgeon of skill that is now unknown, for the union was so close as to preclude, in his opinion, the possibility of a preëxisting fracture. He recognized in it only the evidences of senile change.

DR. SENN, in closing the discussion on his paper, defended some of the points which had been assailed, and entered more fully into the discussion of parts which had not been understood.

DR. MOORE, in closing the discussion of his paper, remarked that we must accept ligamentous union as the rule in intra-capsular fractures, but that when we refuse to admit exceptions to it, we go too far. In one of the specimens which he presented, there could be no disputing the presence of bony union; it was almost ivory.

In regard to Dr. Senn's paper, he could not see anything in the specimen presented by Dr. Senn as an impaction upon which he could found that diagnosis, inasmuch as there were no spiculæ of bone running up into the cancellous tissue, as is the rule in cases of impacted fracture. He also criticised the statement of Dr. Senn that he drew the leg down in treating it. This is liable to do injury.

DR. SENN called attention to the disadvantages under which he labored of not having read more than a sixth of his paper, and having to hurry over that, so that he had no opportunity to fortify many of his statements, and stated that in the case of fracture with bony union which he had reported, he had had ante-mortem evidences of fracture: pain, shortening, and eversion of the foot.

THE PRESIDENT remarked that shortening and eversion of the foot are two of the most fallacious symptoms we could have, and that he was forced to reiterate his conclusion that he could see nothing in the case but senile change.

In the evening a handsome

BANQUET

was given the Association by the Committee of Arrangements.

THIRD DAY, JUNE 2D.—MORNING SESSION.

TRAUMATIC ANEURISM.

The first feature of the morning meeting was the report of the committee to whom the paper and specimens of Dr. Richardson had been assigned. The report mainly confirmed the conclusions of the author of the paper.

DR. WATSON asked the attention of the Association to the method of treatment in this case. The opera-

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ORIGINAL ARTICLES.

ENTEROTOMY AS COMPLICATING OVARIOTOMY.

BY R. S. SUTTON, A.M., M.D.,

OF PITTSBURG, PA.

(*Read before the American Medical Association, at Cleveland, June 5, 1883.*)

IN the autumn and winter of 1881, I spent a few months in the clinic of Prof. von Billroth, at Vienna. In October, of that year, I saw him open the abdomen for a supposed fibroid tumor of the uterus or ovary. The tumor proved to be a malignant tumor of the left ovary, and was adherent to the bladder and to a loop of small intestine. Prof. von Billroth removed the tumor, cut out the infected section of bladder-wall, and closed it with carbolized silk sutures. He then removed the infected section of small intestine and united the ends with carbolized silk sutures. This case recovered and was about the ward in the fourth week. Soon after my return from Europe, this spring, the following case occurred to me:

March 25, 1883.—Mrs. H., aged 50 years; youngest child aged 17 years. After this labor had pelvic peritonitis. Has since that date complained of some distress, by her attributed to "womb disease." States that for the last nine months her life has been a burden; asks that her abdomen be opened, and, if possible, that the difficulty be relieved. Says that treatment has never benefited her, that she lives on the simplest diet, that long ago she was compelled to cease the use of cooked meats owing to pain produced in the abdomen after eating them. She stated that evacuation of the bowels was always painful, and at times almost unbearable. Her husband stated that he had spent hours injecting her lower bowel with oil for her relief. On examination: the woman was badly nourished, pale, and feeble; her abdomen was flat, the wings of the ilia standing higher than its surface; resonance on percussion was everywhere present, excepting along a line an inch above and parallel with Poupart's ligament—here the dulness was only slight; deep pressure here gave decided pain; bimanual palpation per vaginam revealed the uterus in good position, free from soreness, of proper size, with the remains of an old laceration of the cervix on the left side; to the left of the uterus, above the vaginal roof and in front of the rectum could be felt a mass which seemed to be as large as a turkey-egg; it was movable in an upward direction, and I grasped it entirely with the fingers of the two hands; it was tender, and she complained of the pressure; bimanual palpation per rectum confirmed the statement already made, and the pain on pressure now made was earnestly complained of.

It was my conclusion that the body felt consisted of the left ovary, and probably the fimbriated extremity of the Fallopian tube in a state of chronic inflammation, or more properly of hypertrophy, congestion, adhesion, and hyperæsthesia. There was no room for me to suggest laparotomy in the case. The woman gave me to distinctly understand that unless I would open her abdomen that my services were not to be employed. I assented to her request, and on March 28th with my two assistants, Drs. Rahauser and McDonald, and in the presence of Dr. Emmerling, also assisting, I opened her abdomen. I readily found the mass in the pelvis, it would not come up into the abdominal wound until detached with the finger from the sigmoid flexure of the colon. When brought well into view, it was found to consist—

1st, of the ovary not much enlarged.
2d, of the fimbriated extremity of the tube.
3d, of the broad ligament.
4th, of a loop of the small intestine, so fixed that it was curve-shaped in the mass, then passed along, firmly adherent to the broad ligament, up to the fundus of the uterus itself.

The entire mass was a conglomerate of ovary, tube, ligament, and gut.

The gut-wall was thick, and evidently a large mass of organized lymph had glued long ago all together.

My first impulse was to close her belly, but I remembered the patient's request as I lifted her feeble body on to the operating table. It was, "Now, Mr. Sutton, you take that out or let me die." With the finger I detached the gut from the mass and from the broad ligament nearly to the fundus of the uterus, and laid the gut on the surface of the belly at the margin of the wound, and turned around to wash my bloody hand and for a moment's reflection. When I turned again from the wash-basin, my second assistant was holding one end of the gut between his thumb and finger outside of the belly, the other end of the gut was in the cavity of the belly. It had broken off by its own weight, and the slightest traction to arrest its recession into the belly. I recovered the lost end, dissected it entirely free from the broad ligaments all the way up to the uterus, and securing each end with forceps, above the diseased tissue, I cut away all the diseased portion of the cut—about four inches: I now removed the ovary and adhering tissues, securing the base by ligature cut short. All diseased tissue being now removed, I united the ends of the gut with silk sutures and a curved needle, after the manner of Czerny, as taught me by Prof. von Billroth and his assistants, Mickulicz and Wölfler. Twenty or twenty-two sutures were put in. The belly was well cleaned out, and a long glass drainage-tube was placed in the wound, the lower end of it reaching the bottom of the pelvis.

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The abdominal wound was closed, dressed, and the patient was put to bed. One hour was consumed in the operation. No spray was used. The silk (non-carbolized) was simply well scalded, as were also all the instruments. Before beginning the operation, the hands of all were well washed, and then rewashed in five per cent. carbolic-acid water. The drainage-tube remained forty-seven hours, and through it bloody serum was drawn in small quantities for thirty hours; clear serum then appeared, and the tube was removed seventeen hours later. No drug excepting opium was given. The highest temperature reached was 101° F. on the first night. It fell on the following day to 99.5°, and but once afterwards reached 100°—viz., on the twentieth day, when her ignorant husband gave her a dinner of veal. On the third day, she was passing gas per rectum. At the end of the fifth day, the pulse was 88, temperature 99.4° F.

On the 11th day, pulse 90, temperature 98½°; the stitches were all removed on the previous day. No tenderness on gentle pressure existed over the abdomen, and the rectum was filling up with fecal matter.

On the 12th day, the rectum was emptied by an enema and the finger, and an hour or less later the lower end of the colon was also emptied with a little additional water. The bowels moved spontaneously on the 20th day. Up to that time enemata were resorted to frequently. Up to the 16th day the diet was soups and barley, and toast and water. Solid food, beginning with bread, was given; afterwards raw steak. On the 19th day, pulse was 72, temperature 97⅘° F.

On the 21st day she rose and got out of bed to the commode, and the bowels moved spontaneously.

On the 22d day, she was again out of bed for a movement of the bowels.

From the 22d day to the 25th day after the operation she received no medical care.

On the 25th day her family physician took charge of her, and at this writing 70 days have elapsed since the operation. She is going about, and taking solid food.

These cases prove the possibility of avoiding the making of artificial anus in wounds of the small intestine, and the resection of portions of the gut in some cases of hernia where the gut has become gangrenous.

Resections of portions of the intestine have frequently been made abroad, notably by Billroth, Czerny, and Von Wahl. The specimen is here for inspection, also a remnant of the silk used, and also the Kœberlé forceps used to secure the ends of the gut, as well as the curved needle with which the sutures were introduced. The specimen shows full four inches of the gut, and the left ovary but little enlarged. The gut was adherent to the ovary over nearly its entire circumference, and a well-marked stricture of the gut is seen. The wall of the gut is thick from inflammatory deposit, and has undergone at the point of stricture marked fatty degeneration.

The thickening of the muscular tunic beyond the adherent portion is also well marked, and this thickening of the muscularis was a great aid in the introduction of the sutures.

HAVE WE ANY THERAPEUTIC MEANS, AS PROVEN BY EXPERIMENT, WHICH DIRECTLY AFFECT THE LOCAL PROCESSES OF INFLAMMATION?

BY C. B. NANCREDE, M.D.,

SURGEON TO THE EPISCOPAL HOSPITAL, PHILADELPHIA.

(*Read before the American Surgical Association, Cincinnati, May 31, 1883.*)

BELIEVING that the true aim of a paper read before this Association should be merely the indication of the salient points of the subject, in order to elicit as full discussion as possible, I shall omit all such details as are non-essential. It will be impossible for me, in the time assigned, to answer the query forming the title of my paper except with regard to the early stages of inflammation. Owing to press of work, I have also been unable to pursue my investigations as far as I had wished, and should therefore prefer to entitle my paper "A preliminary note as to whether we possess any therapeutic means, as proven by experiment, which directly influence the local processes of inflammation." I trust that any apparent neglect to specifically mention the sources of my knowledge will be set down to the necessary brevity of this paper, and to the fact that all of you must be more or less familiar with the sources whence my facts are culled.

Careful study of the essential processes of various morbid conditions, has often led to the theoretical employment of therapeutic measures, which by their apparent practical use have confidently encouraged their future employment. Clinical proofs, however, always embody the inherent weaknesses of careless or prejudiced observation, with the varying unknown quantity of the effects of the *vis medicatrix naturæ*.

But if in addition we find by experiment that our *a priori* therapeutics when experimentally applied in the case of animals, actually produce the precise effects which we have pre-determined will probably prove efficacious, then we can hardly go astray in confidently applying similar treatment to the human subject. If now we find clinical descrepancies, it must be our aim to ascertain the exact limitation of the remedy for good or evil, and the precise indications for its employment, instead of thrusting it contemptuously aside, when we fail of the expected result, the failure being probably our faulty method of applying the treatment and not self-inherent. Upon the other hand we must always hold before our eyes the experimental mirror of what has been and can be effected, and not expect to do what we have demonstrated is an impossibility.

This paper is avowedly written in advocacy of bloodletting in general, but chiefly of the local abstraction of blood. This once much-vexed question seems again pressing for solution, as the pendulum of unreasoning prejudice and authority, having reached its furthest limit on the side of proscription, is now slowly swinging back to an opposite point, the stability of which must depend upon the possibility of satisfactorily answering the ques-

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tion contained in my title. If the answer be favorable, the revival of bloodletting will be founded upon the only sure basis, viz., that of demonstrated scientific facts which will replace the purely theoretical dicta of authority, which, like the will-o'-the-wisp, led our forefathers into such an erratic use of the lancet that it wrought not only by its abuse its cure, but an almost total abolition of bloodletting, which I for one regret.

A rapid review of the minute processes of the earlier stages of inflammation, coupled with a consideration of some facts relating to the physiology of nutrition, will form a necessary preface to the body of my paper. I shall refer only to the early stages of inflammation, for, of course, no direct effect can be exerted upon the tissue changes of that process, when the inflamed part has returned to its fœtal state—is merely embryonal tissue, only a step further from which is pus.

Examining with a low power, we find that the arteries are normally about one-sixth smaller than the veins, and that "in every artery a space can be distinguished within the outline of the vessel, which is entirely free from corpuscles." The arterial current is the more rapid, and it is appreciably accelerated at each beat of the heart. As to whether there is or is not a primary contraction of the arteries in the first stages of inflammation seems to depend so much upon the irritant used that I shall pass the question by as unimportant for our present purposes. The first change noted is an enlargement of the arteries, which become tortuous, the veins following suit; but there is "a time when, instead of the arteries being sensibly smaller" than the veins, "they far exceed them in diameter." Note this fact carefully. Contrary to expectation, at the outset the circulation is accelerated in the dilated vessels, but the rate soon becomes normal, and is succeeded by a slowing, then an oscillatory movement, a temporary stagnation; again a resumption of the flow, and finally permanent stasis, with crowding of the vessels—the veins especially—with cell-elements, so that the previous clear space existing along the walls of the arteries can no longer be detected.

The obstructions seem to consist solely of red cells, which are so closely packed as to render "their individual forms" . . . "scarcely distinguishable." Free diapedesis of the white-blood corpuscles now takes place, with exudation of liquor sanguinis, both processes having commenced when incipient stagnation set in. The experiments of Ryneck and H. Weber have demonstrated "that in an injured part, the walls of the capillaries become so altered that the liquor sanguinis, instead of transuding from the smaller arteries in quantities just sufficient to balance the absorption, leaks abundantly from the vessels, and that in many cases this is subsequently associated with squeezing out of the leucocytes, or even of the colored corpuscles." The consequence of this free exudation is that, owing to increased pabulum—liquor sanguinis—the cells of the inflamed area multiply until, in many instances, we have the tissue reverting to the fœtal state, when it consists merely of embryonal tissue—viz., a mass of indifferent cells held together by a small quantity of intercellular cement, which latter has only to liquefy, and *pus* at once results.

The remaining subsidiary phenomena of inflammation being non-essential, are purposely omitted.

To summarize the whole process in the words of Dr. Burdon-Sanderson, "the circulation is at first accelerated and increased, subsequently retarded and diminished," and "the latter condition is attended with exudation of liquor sanguinis, migration of leucocytes, and stasis."

That the primary acceleration of the blood-stream is in some way dependent on reflex nerve action seems clear. At this point, our researches into the essential phenomena of inflammation may cease. A few physiological facts demand consideration before I sum up what *a priori* reasoning indicates as to the therapeutics of the early stages of inflammation. Ranvier has shown that the white-blood cell is sluggish, and then ceases to move in the absence of oxygen, and is active in proportion to the amount of that substance present. It is also indisputable that the red cells are the main carriers of oxygen, and that if their numbers are relatively increased to the fluid in a given bulk of blood, especially if, as in inflammation, both the necessity and capability of the cells of the tissue making use of the oxygen are removed, at once an excess of oxygen obtains, *i. e.*, an increased amœboid action of the white cells not only is possible, but becomes a necessity. Physiology teaches us that only so much of the constituents of the blood-plasma exude or are withdrawn by cell-action as suffice for the normal function of the parts, and that, if any excess is present, that the lymph-spaces return it into the lymphatics, whence it passes into the general circulation. If, however, the lymph-spaces are compressed by dilated bloodvessels, and crowded with migrated cell-elements, the excess of pabulum must be retained, with a consequent stimulus to undue cell-proliferation. Precisely this obtains in inflammation. But physiology likewise shows us that there is a certain attraction exerted upon the blood-current by the tissue-cells according to their varying wants which not only aids the *vis-a-tergo* action of the heart, but actually determines to a certain extent the amount of blood present at any given time, for instance, in a gland. If this action obtains in health, there is no reason to doubt it is still more potent in disease. From the physiological fact upon the one side that only so much pabulum is withdrawn as suffices for healthy function, and, on the other, that in inflammation this material is in great excess, it seems proven, viewed from the light thrown upon the subject by the experiments of Ryneck and Weber, that, in some way, the capillary walls are injured by intra-vascular pressure.

To summarize: (1) Intra-vascular pressure injures the vessel-walls, aided, perhaps, by the constant passage of the white cells; in consequence, an inordinate amount of blood-plasma exudes, which stimulates cell-proliferation. (2) The accumulation and stagnation of the red-blood cells, with the draining-off of the liquor sanguinis, cause a relative excess of oxygen, which excites to increased

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amœboid action the white-blood cells and their consequent migration. By the study of the phenomena of osmosis, we learn that stagnation of fluid and intra-vascular tension induce outflow; but reverse the latter condition, increase the rapidity of the circulation, and, with the constitution of the blood, an outflow must result.

From these studies I am forced to conclude that a theoretically perfect remedy for incipient inflammation must comprehend the following effects. It must either lessen the *vis-a-tergo* of the heart's action—so as to prevent injury to the vascular walls by over-distention and the consequent outpouring of liquor sanguinis; it must prevent such an ingress of blood into the affected area as would produce the excess of oxygen, the migration of cells, the blocking up of the lymph-spaces, etc.; or what would practically amount to the same thing, it must so lessen the difficulty of escape on the venous side, that howsoever great the *vis-a-tergo*, a ready draining off, nay, aspiration, as it were, of the venous blood may occur; if possible, both these effects must be produced. The last requisite would be that the remedy must increase the frequency while it lessens the force with which the heart acts, for although, whatever, would lessen the *vis-a-tergo* would prevent any further outpouring of pabulum, yet that which was already exuded must remain, and would have to be consumed before the initiated cell-change could cease. In my experiments on the frog's tongue I noted all the vascular changes described in the earlier part of this paper. When the stasis was complete, a large vein on the distal side was divided, *i. e.*, local bleeding was effected from the vessels directly leading from the inflamed area. I purposely avoided opening the vein on the cardiac side of the phlogosed spot lest I might simultaneously divide the supplying artery. By severing one of the ranine veins at a point where I could distinctly see that the venous radicles of the inflamed area emptied, I achieved my purpose without further damage.

The effect upon the obstructed vessels was first an oscillation of the blood disks, then an occasional momentary flow of blood, then suddenly a rapid resumption of the circulation sweeping out the bloodvessels, and apparently restoring them to their normal condition, except at spots where the agents inducing the inflammation had chemically destroyed the vessels or coagulated their contents. I do not presume to say that the white corpuscles betook themselves at once back again into the bloodvessels, for I did not use sufficient amplifying power to observe this, nor was I then dealing with any other processes than the vascular changes. I should have carried my researches much further had I not seen that nothing was needed beyond a mere corroboration of Gensmer's admirable paper, which I shall now quote:

"At the present time it is generally accepted, that by local bleeding inflammatory stasis is relieved, but this view has not been demonstrated; many adhere to the derivative action of bleeding and many still believe in the loss of blood as such, in the amount of blood drawn. The web of the foot of a curarized frog, was burnt with a red-hot pointed needle, or with nitrate of silver." . . . "As soon as" . . . "slowing of the current and stasis had taken place, a leech was placed near the hock-joint." . . . "As soon as sucking began, the picture under the microscope changed in a striking manner. The blood-current was immediately accelerated, blood corpuscles which adhered to the wall passed into the blood-current, stasis was relieved, briefly, the inflamed capillary loops were in a short time, sometimes in a few minutes, entirely free, and presented in a few cases at the termination of the experiment, the appearance of a perfectly normal and even accelerated circulation." The authors were unable positively to determine whether the migrated white-blood cells "were in any way influenced by the bleeding" Owing to the tardy rate with which the blood was effused after scarification, the author stated that the good effects were not comparable to those of leeching. In like manner general bloodletting by opening an abdominal vein was inferior to leeching near the affected area. Dr. Gensmer considers it proven "that the antiphlogistic effect of local bleeding is due to a purely mechanical cause. Through the stronger current caused by the sucking of the leech (or by a cupping-glass, or by scarification) is the blood corpuscle which adheres to the wall in the inflamed territory torn away, the obstructed capillary perfectly opened and there is a normal, indeed a temporarily stronger circulation established." . . . "Local bleeding prevents stasis. Bleeding not only does not cause local anæmia, but even occasions (of course transiently) arterial hyperæmia, that is, it causes a more intense flow of arterial blood to the inflamed point. Further, this abundant supply of arterial blood results in a better nourishing of the tissue, and that, therefore, the tissue is better able to withstand the effects of the inflammatory process is to be expected. It further follows that the antiphlogistic effect of bleeding depends upon the quantity of blood drawn, and that in the first place only the rapidity of the current is to be considered. Evidently the bleeding must take place when possible between the inflamed point and the heart, and not far from the former."[1]

What the effects of bloodletting are upon the general circulation has an important bearing upon the subject we are now discussing. According to the latest authority, "The water is increased, and the globules," . . . oxygen carriers, "*are diminished* in relative amount." . . . "The action of the heart becomes *more rapid* and its force lessens"—the italics are mine—"the arterial tension falls." But how about the evil effects of bloodletting? "It is a remarkable fact perfectly well known to old practitioners, and to which Sir James Paget has recently called attention, that the ill-effects of bleeding in healthy subjects are very temporary and easily repaired. The blood globules, which are relatively more affected by bleeding than

[1] Dr. Alfred Gensmer Halle. Centralblatt für die medizinschen Wissenschaften, April 1, 1882.

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the other constituents, are quickly reproduced." . . . As surgeons, we must all have had ample proof of this fact. Some years since while pursuing other investigations upon human blood, I observed the same fact and noted it in the published report of my work. I need hardly point out, that if my experiments with those of Gensmer's are reliable, and the other facts quoted are really facts, our ideal remedy is found. From the quotations given of Gensmer's paper, it is clear that our experimental results exactly tally. I think, however, that the superior advantages of leeching over scarification, etc., can hardly be similarly obtained in the human subject since the relative size of the leech to the frog must have had a considerable share in effecting the good obtained by an actual aspiration of the blood. In my own experiments, by dividing a large vein in the tongue, I obtained the effect of bloodletting pure and simple. To produce the best results, then, we should, when possible bleed from one of the principal veins leading from the inflamed focus. When this is impossible, leeching or wet-cups should be resorted to, since by both the mechanical effects of aspiration are superadded to the mere outflow of blood. But many authorities maintain that bloodletting can be dispensed with in all cases, for exactly the same results are obtained by the use of arterial sedatives. To test the truth of such statements it is only requisite to experimentally induce inflammation, and then give a large dose of gelsemium. The arteries are seen to become smaller, the current slower, and if stagnation has already occurred, it increases or remains stationary. This and similar remedies then reverse that which both upon theoretical and experimental grounds we have found to be most effectual. They certainly also interfere with the rapid absorption of effusions.

From a review of the facts set forth in this paper, I think I am warranted in stating the following propositions as the logical and practical outcome of my investigations:

(1) During the stage of dilated arteries, with increased rapidity of the current, but little danger of capillary changes with exudation need be apprehended, and here perhaps ergot, certainly arterial sedatives do good, either directly or indirectly, without bloodletting, by reducing the size and rapidity of the current, thus allowing the veins of the irritated area time to empty themselves, even of an unaccustomed amount of blood. Thus if vascular-pressure changes have taken place, the vessels have an opportunity to return to the norm.

(2) After stasis has occurred, or while it is occurring, weakening of the heart's action and a diminished volume of the current—*e. g.*, the effect of arterial sedatives—can do nothing but harm to the inflamed area, although, for the reasons given in proposition 1, it may prevent extension of inflammation in the circumjacent parts, which are merely in the earlier stages of congestion.

(3) The results to be sought, and which are secured by local bloodletting, are removal of the blood on the venous side, so that the vessels can not only empty themselves, but a certain amount of *vis-a-fronte—i. e.*, aspiration—is invoked: this secondarily results not only in a temporary return to the norm on the arterial side, but an increased rapidity (and here is an important point)—lessened force of the circulation. The acceleration of rate without the weakened force of the circulation would further damage the vessels, instead of which the increased rate of the current merely serves to sweep out the accumulated red-blood cells, the cause of the excess of oxygen, and the consequent cell-migration. The vehement current also induces a rapid resorption of the effused liquor sanguinis, at once the stimulator to growth, and the food of the cells. This latter advantage is not founded on theory alone, for it is a matter of common observation that the mere amount of blood extracted produces no sensible effects on an inflamed breast, for instance, *at first*, but in a few hours, the skin, if carefully examined, has become wrinkled, and the organ shrunken. This effect is secondary to the loss of blood, and chiefly results from the absorption of the inflammatory exudate.

(4) Arterial sedatives in the later stages are usually inadmissible except as succedanea to bloodletting, as far as the focus of inflammation is concerned: the surrounding parts, which are merely congested, may be benefited by their exhibition. After bloodletting, they act favorably, because, when the stasis has been overcome, they lessen intra-vascular pressure, and thus permit the blood-vessels to recover their normal condition. They also alleviate pain by lessening the bulk of blood in the part—*i. e.*, they relieve nerve-pressure.

As before intimated, this essay is in reality little more than a few notes on the effects of local bloodletting, and does not pretend to cover the extended field of either the local or general treatment of inflammation. If my remarks prove fruitful in the way of an instructive discussion, which may induce some of my hearers to resort anew to this useful but neglected remedy, I shall feel amply rewarded.

MEDICAL PROGRESS.

INJECTIONS OF ARSENIC IN GENERAL SARCOMATOSIS.—PROF. KÖBNER reports a case which still further confirms the value of Fowler's solution of arsenic in cutaneous diseases. Two years ago, the patient, who was eight and a half years old, and has always been delicate, developed sarcomatosis of the skin, which gradually spread, until almost the whole cutaneous surface was affected. Köbner commenced injecting Fowler's solution in distilled water, in proportions of one to two; from two and a half to four drops of the arsenical solution being used at each injection, thrown under the skin or into the muscular tissue of the gluteal region, and into the stroma of some of the larger tumors. In three months five injections were made, ʒij of Fowler's solution being used. At the end of three months the tumors were considerably diminished, having disappeared in some places, leaving a brownish cicatrix. Equal parts of the arsenic solution and distilled water were then used, six to nine drops being injected; in about forty days ʒiv of Fowler's solution being used, with progressive amelioration of the symptoms, the lymphatic glands being greatly reduced in size, and the liver and spleen reduced to the

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normal diameter. The quantity injected was then gradually reduced, and in one year from the commencement of treatment, nothing was left of the disease except a few cicatrices showing the former position of some of the larger tumors.—*Gaz. degli Ospitali*, May 13, 1883.

SUCCUS CONII IN CHOREA.—DRS. CLIFFORD ALLBUTT, EDDISON, and CHURTON have obtained good results in the treatment of chorea, with violent movements, by large doses of succus conii. The patients took from ʒij every hour to ʒss every four hours during two or three days. It was given sometimes alone, sometimes in combination with morphia or bromide of potassium. It seems that the best results would be obtained by large doses at first, until the system is thoroughly under its influence, when smaller doses, frequently repeated, will keep up its action. No toxic effects were ever noticed in these cases. The cases seem to show: 1. That the drug, to be of any service, must be given in large doses. 2. That its action must be sustained by frequent repetitions of the dose at short intervals. The uncertainty of the action of given specimens of succus conii necessitates great care in its administration, and militates against its general adoption. But cases in which neither chloral nor morphia have any effect may arise, and in which, as in the above, succus conii may prove efficacious.—*Lancet*, May 26, 1883.

GELATINE TEST FOR ORGANISMS IN WATER.—DR. ANGUS SMITH, of Manchester, has recently brought forward this new test for the detection of organisms in water. It consists in rendering the water thick by dissolving gelatine in it. If pure, the gelatine cylinder remained long unaltered; but if the water be impure from the presence of organisms, the gelatine round the organisms becomes liquefied and globular, the organisms remaining solid at the bottom of the spheres.

Dr. Angus has prepared photographs of test-tubes of water which had been thickened by a solution of the purest fish-gelatine, and then exposed to the action of light. When the water was pure it remained translucent; but when bad, bubbles were rapidly formed, and the bacteria which appeared to be in the water began to act on the gelatine, breaking it up and rendering it soluble. A rapid movement of gas was observable. When the bubbles or balls appeared to be spherical they were aggregations of bacteria. This change took place quickly—almost in twenty-four hours. But a peculiarity of the test was this: that it was only applicable where infusorial animals were present. For instance, peaty water in which there were no animalcules or bacteria would stand without breaking up the gelatine. In order to change the gelatine bacteria must be present. Organic matter that is not putrescent or infective will not do it.—*Med. Times and Gaz.*, May 26, 1883.

TURPENTINE VAPOR-BATHS IN GOUT AND LITHIASIS.—M. BRÉMONT, FILS, has recently submitted a memoir on this subject. The turpentine employed is that of the cedar, and its vapor is absorbed by the skin from a vapor bath. That the remedy is absorbed is proved by the fact that the urine acquires the characteristic odor of the turpentine. During the first five or six days of the treatment there was a marked increase of sand in the urine of patients with uric diathesis, but this phenomenon does not indicate an exacerbation of the affection, for the quantity of sand rapidly diminishes after this and finally disappears entirely. These happy results persist for a long time after the vapor-baths are discontinued.—*Gaz. Hebdom.*, May 4, 1883.

BACILLUS OF TYPHOID FEVER.—PROF. EBERTH, of Halle, has recenly written a paper on the bacillus of typhoid fever, in connection with one from Volkmann on the bacillus of typhus. It is well known that Klebs has already published the results of his researches on this subject. According to Eberth, these bacilli differ from others by their rounded extremities, and by their feeble power of absorbing staining matters. They are smaller than tubercle-bacilli; they are present *en masse* to a less degree in ganglia, and contain small cellular-like bodies, which are, perhaps, spores. These are not the only organisms found in typhoid, seven other species being differentiated. Nuclear infiltration of the intestines, ganglia, and spleen contained a great number of them. In one case, when the disease was at its apogee, their number was greatly diminished, which may explain the negative results in a number of cases. Eberth found the bacilli eighteen times in forty cases. He is supported by the results of Klebs, Koch, Meyer, and others. In twenty-four various affections, of which twelve were cases of intestinal tuberculosis, the bacilli of typhoid were not once found: Meyer, in six cases of scarlatina, measles, and diphtheria, was equally unsuccessful in searching for them. Eberth believes that the bacilli are most constant in the intestinal mucous membrane and in the mesenteric glands, whence the blood-current carries them to the spleen. So far, attempts at cultivation and inoculation have not been successful. [The experiments of Maragliano, of Genoa, have already been published.]—*Progrès Méd.*, May 19, 1883.

CHLOROFORMIZATION DURING SLEEP.—In the *Medical Record* for April 28, 1883, DR. JOHN H. GIRDNER takes the ground that chloroform narcosis cannot be produced during sleep, and supports his position by giving the details of five trials, all failures. The chloroform was poured on a folded towel and held about eight inches from the sleeper's face. One of the persons experimented upon awoke at the end of two minutes, the others in three. DR. DAVIS HALDERMAN, in a letter to the *Medical Record*, June 2, 1883, on this subject, quotes cases which show conclusively that chloroformization can be produced during sleep, and that the chloroform should be administered from a handkerchief held, at first, about twelve inches from the sleeper's face, and gradually brought nearer; though in two cases reported in the *Pac. Med. and Surg. Journ.*, Jan. 1874, the anæsthetic was poured on a piece of surgeon's lint and held as near to the face as possible without actual contact; both cases were successful. Dolbeau made twenty-nine experiments, with a view to determining this question, on persons of both sexes and of various ages; ten were completely successful. Dr. Girdner's experiments were all made in the same manner, although all were failures, and it is justly remarked that under these circumstances different methods should have been tried.

BACILLI OF TUBERCLE.—M. COCHEZ, who has made numerous investigations on the presence of the bacilli tuberculosis in sputa, has come to the following conclusions: 1. An examination of the sputa of tuberculous patients shows the constant presence of the bacilli. 2. The larger or smaller number of these elements may furnish data regarding the progress of the disease. 3. The absence of the bacilli, established at several different times, is strong ground for rejecting the diagnosis of tuberculosis. 4. The sputa of phthisical patients constitutes a favorable medium for the culture of tubercle-bacilli; hence it is necessary to take careful antiseptic precautions to prevent their propagation.—*Gaz. Hebdom.*, May 25, 1883.

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OF MEDICAL SCIENCE.

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SATURDAY, JUNE 16, 1883.

COMPLICATIONS OF EXOPHTHALMIC GOITRE.

THE classical symptoms of exophthalmic goitre are sometimes diversified by other nervous disturbances. The rapid and irregular action of the heart, the enlarged thyroid, the dilated cervical vessels, and the protrusion of the eyes, constitute the quaternary of symptoms which give to this disease its special characteristics. Besides these necessary symptoms, there are accidental complications, which impart variety to its monotonous symptomatology. These complications may be in the mental or moral sphere, or may involve the motor and nutritive functions.

Trousseau was the first to recognize the changes in the character and disposition which in some cases distinguish this disease. We have encountered a case in which the appearance of the malady seemed to be due to a profound moral emotion. A lady, just before retiring, received some distressing intelligence; in the morning, to her extreme amazement, her appearance was so changed as to be scarcely recognizable, in consequence of a considerable exophthalmos and enlargement of the thyroid. In another case, during the course of the disease, various kinds of morbid fear, melancholia, and wakefulness, were pronounced symptoms. In all the cases which we have observed, there were various changes of the disposition, as distrust of others, fretfulness, morbid self-consciousness, etc.

The moral perversions are less important than the epileptiform, but the latter are much less common. Dr. Ballet, in a communication which we find in the *Revue de Médecine*, of April 10, 1883, has been able to collect five cases, in addition to the observation of Gildemeester, which is usually referred to by the writers on this topic. In the first case, the epileptic seizures which had occurred for many years disappeared when the exophthalmic goitre came on. Dr. Ballet's cases are divisible into two classes: those in which the convulsive seizures and the exophthalmic goitre succeed and supplant each other; those in which the two maladies continue separately in the same individual.

Of the five cases whose histories are given in detail, there is one corresponding to Gildemeester's, in which attacks of epilepsy ceased when exophthalmic goitre appeared; and one in which these phenomena were reversed. In the second group of cases, the convulsive seizures appear to have the relation of epiphenomena, and grow out of the circulatory disturbances belonging to Graves' disease. The epileptic attacks are not habitually present; the disease is exophthalmic goitre, and this has, as an accidental complication, the convulsions.

Many cases of Graves' or Basedow's disease have been complicated with paralysis, with hemiplegia, and with paraplegia; others with hysterical paraplegia, hemianæsthesia, and similar hysterical affections. They may therefore be durable or permanent, or temporary; in the former dependent on structural changes; in the latter due to mere functional disturbances. From these facts it may be concluded that there are probably two types of this affection. Clinically, this appears highly probable. There are cases of exophthalmic goitre which occur suddenly, which behave in their course as other neuroses, and are not accompanied by any organic changes; there are others which develop slowly, and manifest by the permanence of the lesions, actual and complicating, the permanent character of the affection. As respects the latter, it is an interesting fact that Filehne has produced the trinity of symptoms of which this malady is composed by experimental lesions of the restiform body.

Another group of complications are those which involve the nutritive functions more especially under the control of certain nerve-centres. These are polyuria, diabetes, and albuminuria. These affections are by no means unfrequent complications of exophthalmic goitre. They are, properly speaking, epiphenomena, and they serve to ally this disease on the one hand with the organic affections of the nervous system; and this relation may help to explain the affiliations of polyuria, diabetes, and albuminuria with each other. Of these complications, diabetes is held to be the most common. In a case which has occurred under our observation, in a young man, exophthalmic goitre, in a perfectly typical form, succeeded to an attack of albuminuria, so that when the former was fully developed, the

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women, who are more interested in showing it than the graduates of our women's colleges?" We commended the matter to the "Association of Collegiate Alumnæ," and urged a fearless and a thorough examination of the facts.

We are glad to see that our suggestion has been acted upon. The Committee of the Association on Health Statistics, consisting of representatives from twelve colleges for women, has just issued a blank form for a "health return" from each "alumna," on the back of which the two sentences we have above repeated are quoted. The document is rather formidable in length, covering fifty questions under these seven headings: Conditions of Childhood, Individual Health, Family Health, College Conditions, Conditions since Graduation, if dead, the Cause and Date of Death, Special Statements. Nothing of importance seems to have been omitted, as to the graduates. But we see no evidence that measures are to be taken for obtaining *the number of students who have been compelled to leave college on account of failing health*, and the proportion it bears to the whole number of students. This is one point as to which there has been so much criticism that we think it ought on no account to be omitted.

One other point is of the utmost importance: *The results must be stated with absolute accuracy, no matter which side they may favor.* Theories must yield to facts. Dangers to health must be uncovered and remedied, if they exist, or, if falsely asserted, it must be so stated upon a firm foundation of facts. "*Mehr licht*" is what we want, and it seems we are going to get it.

THE APPLICATION OF RESORCIN IN THE TREATMENT OF CHANCRE.

DR. LEBLOND has recently employed, in his service at St. Lazarus, as a topical agent, resorcin, in the treatment of chancre, mucous patches, urethritis, and vaginitis. As regards soft chancre, Dr. Leblond finds that resorcin is more efficient in securing cicatrization of a soft chancre than iodoform, and the duration of the treatment is shorter. It is the more desirable in these cases, since it is free from odor, and does not cause any symptoms of toxæmia, even when used in considerable quantity. The local effect of resorcin, when applied to a fresh wound, is caustic, but the action is very superficial; the surface is whitened because of the coagulation of the albumen, but the parts beneath are unaffected. If a pinch of resorcin, moistened, is placed on the lips, a whitish spot of vesication is produced, but the effect is limited to the epithelium.

By Dr. Leblond, for the purposes above indicated, resorcin is applied in powder, and also in solution. The solution is prepared by dissolving resorcin in the proportion of twenty-five per cent. in distilled water. The application of this is made by suitable dressings three or four times a day. When pure resorcin is employed, it is thoroughly dusted over the affected surface. The pain is not severe, and soon subsides. The first contact is accompanied by smarting, and resorcin, which is so closely allied to carbolic acid, does not have the same power to lessen the irritability of the sensory nerves.

Take it all in all, resorcin is a promising substitute for the offensive, if efficient, iodoform. If Dr. Leblond's observations are confirmed we have a valuable resource in this remedy. As its production is not difficult and its cost comparatively low, there seem to be ample reasons for its employment.

THE CHILDREN'S COUNTRY WEEK.

WE have before us the Sixth Annual Report of the Association thus appropriately named. It is most delightful reading, partly because it is short, partly because it details such practical religion, and not least because the subscription list covers more pages than the report itself.

Few charities are more deserving of hearty support. Like the poor, the children we have always with us, and doctors are the very ones who appreciate most of all the physical as well as the higher benefits to be derived from such a change as a week in the country. To many of the little sick folk in whom our drugs can oftentimes work but little change, God's pure oxygen, the green fields, the barn, and the hay-mow are the tonics to fill their bloodvessels and tan their cheeks.

The Philadelphia Association gave over 1800 persons an average of nine days in the country, and nearly 17,000 were sent on day excursions. The average cost the previous year was twenty cents for the latter and $2.20 a week for the former. The economy of administration is marvellous, as it was only four and one-half per cent. of the receipts!

After a careful personal inspection by a committee, thirty-five boarding-houses were selected to supplement the too scanty private invitations. Usually these were respectable farmers who received from four to six boarders each. All of the children were inspected to see that they were free from contagious disease, and as far as possible of good personal character; and each small child was labeled with a tag bearing its home address and destination, while postal cards properly addressed were provided so that the Association and the parents were informed of its safe arrival. Each child, also, was met on its return by a proper escort.

We call the attention of the profession to this charity, that they may avail themselves of it for the suffering little folk in the approaching summer, and also, that they may commend its treasury to their friends.

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tion of the epiglottis, soon followed by ulceration of this structure and of the fold of tissue uniting it with the pharynx. The duration of the disease, which always terminated fatally, varied from six weeks to six months as the rule. The most efficient means of relief was afforded by insufflations of morphia, or of morphia and iodoform. Previous to the insufflations, the secretions should be detached by the propulsion upon the parts of some alkaline spray. The formula most used by the writer consisted of five grains of borate of soda dissolved with one drachm of glycerine and seven drachms of tar water.

The chronic form of tuberculosis might be divided into two chief groups, one of which lasted from six to eighteen months, and the other from two to four years or more. Congestion of the larynx early in pulmonary tuberculosis, followed by infiltration of the epiglottis, and its progressive destruction by ulceration, is indicative of the more rapid process. Pallor of the mucous membrane, succeeded by tumefactions at the posterior portions of the larynx, is indicative of the slower process. Infiltrations of the interior of the larynx indicate a still slower process in many instances, and ulcerations limited to the epiglottis indicate a much more rapid one. The interference with deglutition is a marked factor in the downward progress of the disease.

With regard to therapeutic measures, in addition to the constitutional treatment appropriate to pulmonary tuberculosis, much good may be done locally by keeping the parts cleansed with alkaline spray, and painting the intumescent parts with equal parts of compound solution of iodine and glycerine, or weak solutions of iodine and carbolic acid combined. In the stage of ulceration, nothing seems to act so well as insufflation with well-powdered iodoform, the unpleasant odor of which may be tolerably well masked by rubbing with it a little attar of rose, one minim to the drachm, or essence of rose geranium, three or more minims to the drachm.

Careful medical attention in this way, with due regard to intercurrent requirements, renders the condition of the patient much more satisfactory, and even starts one now and then on the actual road to recovery.

DR. H. A. MARTIN, of Massachusetts, then read a paper on

VACCINATION AND PROPAGATION OF VACCINE VIRUS,

in which he claimed that the proper sources of vaccine are young heifers which have not dropped a calf. The young animal is perfectly exempt from diseases to which the older animals are subject; tuberculosis, for instance, which, in the bovine species is extremely difficult to check, is a disease of old animals; and recent discoveries make it appear that virus from a tuberculous animal is unsafe. Young animals, then, from four to eight months old, are to be preferred. After vaccination they are ready to yield the virus in from six or eight days. A physician must then determine when the vesicle is in the right state to yield lymph, and when the pressure is to be applied. The epidermis of the heifer is very tough and resistant, and does not yield the virus as readily as the human arm. At each point where a puncture is made a drop of perfectly pellucid lymph appears, and upon the application of pressure, it pours forth in a quantity that is surprising. The first points covered are so bloody that we do not use them, yet a large proportion of the points collected are bloody. The number of quill-points collected from a single animal varies from two thousand to six thousand. There being a limit to the production; there must be a minimum price for which the virus can be produced. If you vaccinate an animal once, it can never be vaccinated again.

DR. J. H. HOLLISTER, of Illinois.—If you vaccinate in two places, will you not obtain twice as much virus as when you vaccinate in one?

DR. MARTIN.—Yes.

DR. HOLLISTER.—Then why can you not increase the number of vaccinations indefinitely, and so obtain a larger amount?

DR. MARTIN.—Because the external area of the calf is limited. There are only limited portions of the calf that are fit for vaccination. I have found that the buttock is altogether the best part of the animal for this purpose. We vaccinate in from sixty to one hundred and twenty places.

DR. A. T. KEYT, of Cincinnati, then read the closing paper on the *Diminution of the Retardation of the Pulse in Aortic Insufficiency.*

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

WEDNESDAY, JUNE 6TH, SECOND DAY.

DR. JOHN MORRIS, of Baltimore, read a paper on

WHAT MEANS CAN BE JUDICIOUSLY EMPLOYED TO SHORTEN THE TERM AND LESSEN THE PAIN OF LABOR?

He said that in no one thing have the wisdom and genius of the age been more thoroughly exhibited than in the advance and elevation of the art of midwifery. Once considered an inferior branch of medicine, it has, through the vigor and enlightenment of those pursuing it, risen to the highest rank in the scale of the sciences. He confined his remarks to the management of natural, uncomplicated labor. He treated cases of lingering labor, which he divided into three stages or conditions: 1. Labor may be lingering when the head is delayed at the brim of the pelvis. 2. Where the os has dilated to some extent, and the head has descended into the vagina. 3. Where it has reached the vulva, and impinges on the perineum.

When labor is tardy in the beginning, the os dilating very slowly, the pains feeble and irregular, and the head high up, means may be carefully employed to hasten its progress; but if the woman is cheerful and hopeful, interference may be delayed, but not for twelve or sixteen hours, as Churchill and other writers have recommended. Exhaustion of the woman's powers in the first stage necessitates instrumental aid in the second.

In cases of slow dilatation, Braun, of Vienna, recommends the introduction of an elastic catheter between the chorion and the walls of the uterus; but Dr. Morris thinks the cautious use of the finger much better. After detachment of the membranes in this way, if the soft part of the finger is pressed gently around the whole margin of the os, stretching it, the bag of waters will commence to project, the os will dilate, and the pains become effectual.

For painful cases, where the membranes rupture prematurely—tardy dilatation, due to rigidity; spasmodic contraction; that condition of the uterus in which the fibres of the cervix contract, and form a rim or band above the os; inertia; rigidity of the perineum, etc.; the means the author suggested were detachment of the membranes, dilatation of the cervix, administration of opium or chloroform, hot-water douches, the colpeurynter, dilatation of the perineum by manipulation, sweeping the anterior lip of the os over the occiput, but, above all, forcible external compression. In case all these means fail, the only resource is the forceps, and their application should not be delayed. Dr. Morris strongly recommends Beattie's straight Dublin forceps when the head presents itself at the outlet. He stated in conclusion that, in making these suggestions, he did not wish to be understood as recommending an imitation of the *lesser labors* of the French, where the accoucheur, with

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rolled-up sleeves, presents himself in front of the patient, and, with great flurry and a show of manipulation, leads the bystanders to believe that he himself is doing the parturient work, but a scientific employment of measures which experience has proved to be both rational and useful in furtherance of the greatest physiological process known to man.

DR. T. A. REAMY, of Ohio, said that if there was anything that was an abomination, and ought to be banished from obstetrical practice on account of its great danger to the mother and child, it was ergot. (Applause.)

DR. E. C. DUDLEY, of Illinois, then read a paper on

THE IMMEDIATE APPLICATION OF SUTURES IN PUERPERAL LACERATION OF THE CERVIX AND PERINEUM.

He said that the examination of several hundred cases of immediate perineorrhaphy showed the deeper perineal structures had not satisfactorily united except in a very few cases.

1st. This is accounted for by the failure of operators to include the deep muscular and connective-tissue structures in the suture; to use a sufficient number of sutures; to use silver sutures, to bring the parts accurately together, to pass the sutures at right angles to the laceration, and to continue therein throughout the vaginal portion of the rupture, as well as throughout the cutaneous portion.

2d. Even when these precautions had been observed and complete union had been secured, subsequent examinations often show that the perineum is too small to fulfil its functions.

3d. To insure a permanent perineum of normal size the operator should denude a strip entirely around the ruptured surfaces about one-quarter of an inch in breadth. In consequence of this the perineum, although somewhat larger than normal immediately after closure, will subsequently contract to its proper size. This denudation also serves the important purpose of insuring union by first intention, because it fortifies the torn surfaces by smoothly denuded surfaces which have a greater tendency to adhere. The objection so often raised against the immediate suture, that it so often fails of union, is obviated, and the immediate operation, thus modified, becomes as certain in its results as the secondary operation. This paper elicited some discussion by Drs. Harvey, of Ohio; Watkins, of Kentucky; Jenks, of Chicago; Morris, of Baltimore; Ulrich, of Pennsylvania; and Parsons, of Detroit.

DR. WM. H. TAYLOR, of Ohio, then reported a case of *Gastro-elytrotomy*.

THURSDAY, JUNE 7TH, THIRD DAY.

DR. P. ZENNER, of Ohio, read a paper on the

VALUE OF GYNECOLOGICAL TREATMENT IN HYSTERIA AND ALLIED AFFECTIONS.

He said that lesions of the female genitalia are sometimes productive of hysteria or allied affections, and that the removal of the local lesion sometimes alleviated or cured the nervous disease.

Hysteria is a disease of the nervous system involving the great nervous centres. It may be termed a functional disease. That a peculiar condition of the nervous system underlies the development of hysteria is seen in the fact that it usually occurs in individuals predisposed to such affections.

The predisposition alone seems sometimes sufficient for the development of the nervous malady; though some exciting cause calls forth its first manifestations. Most frequently this is of psychic origin, emotional excitement, fright, or the slower action of some strong and absorbing passion. Not uncommonly, the exciting cause appears to be some peripheral source of irritation, producing the disease in a reflex way.

A close relationship between genital functions and nervous diseases is seen in the frequent development of the latter at important periods of sexual life. The time of puberty and the climacteric period are especially favorable for the outbreak of nervous diseases. The periods of gestation and lactation have, though less frequently, a similar record.

It is undoubtedly a fact that hysteria and uterine disease very frequently occur together. But we must not hastily conclude that one is dependent upon the other; perhaps this is a mere coincidence.

It is no uncommon thing to see uterine lesions disappear without improvement of the nervous symptoms, as also the cure of the nervous disease, while the lesions in the genital organs remain.

Dr. Zenner then cited a case, reported by Rosenthal, of hystero-epilepsy, where the unsexing of the woman had no influence on the hysterical seizures, and also a few cases that were under his own care. He added, there are no other diseases which cause the mind to dwell so persistently on the diseased organ as those of the genital organs, and in such cases the influence of the mind is especially injurious. It is important in the treatment to divert the thoughts from the genitals as much as possible. Also, we cannot too strongly condemn the promiscuous gynecological examination of girls or unmarried women merely because there are nervous symptoms.

In the mean time, it must be remembered that the general treatment, the toning up of the nervous system, is always the most important object. In fact, the duty of the physician demands much more than the mere treatment of existing manifestations. He should attempt to prevent the disease, to eradicate the predisposition upon which it depends. He must warn society that the idle lives of the fashionable ladies, with just such employments or amusements as heat up an already wayward imagination, or foster the morbid feeling in their nature, must produce hysterical affections in them, just as overwork, intense application to business, and, even more, the unfortunately common habits of gambling, lead to immense mental injury to men. The physician should inculcate the practice of proper hygienic regulations in childhood, point out a system of education that will soundly develop body and mind, and lead to habits of self-control and unselfishness.

When the disease already exists, proper moral, hygienic, and constitutional treatment, hydrotherapy, etc., and in obstinate cases the plan of treatment brought forward by Weir Mitchell, will often lead to happy results.

This paper was discussed by Drs. Reamy, of Ohio; Garcelon, of Maine; Catlett, of Missouri; Maughs, of Missouri; Proctor, of Illinois; Reed and Zenner, of Ohio.

The CHAIRMAN announced as a *Committee for the Selection of Subject for Prize Essay*, Drs. L. F. Warner, of Massachusetts; H. D. Didama, of New York; and W. H. Byford, of Illinois.

The Committee of Award, was appointed by the Chair as follows: Drs. J. C. Reeve, of Ohio; T. A. Reamy, of Ohio; G. M. B. Maughs, of Missouri.

DR. G. M. B. MAUGHS, of Missouri, read a paper on *The Midwifery and Gynecology of the Ancients*.

DR. H. A. MARTIN, of Boston, then read a paper on

AN APPLIANCE ADAPTED TO OCCASIONAL GYNECIC AND OBSTETRIC EMERGENCIES.

This is a thin bandage of pure rubber, nine inches wide and from five to six feet long, and has been found of very great value in many cases of abdominal dis-

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ease in which no other form of bandage could be endured by the patient.

SECTION ON SURGERY AND ANATOMY.

WEDNESDAY, JUNE 6TH, SECOND DAY.

DR. ROBERT NEWMAN, of New York, presented a paper on the *Surgical Use of Electrolysis*, in which he submitted a tabulated statement of one hundred cases of urethral stricture treated by this method.

DR. JAMES R. TAYLOR, of New York, then read a paper on the

TREATMENT OF FRACTURES OF THE LONG BONES,

in which he briefly presented some methods of diagnosis and treatment from the extensive surgical *clientèle* of the out-door department of Bellevue Hospital. He first spoke of fracture of the thigh bone, which he treats with a saddle made to fit into the perineum, whereby he secures the most perfect comfort possible by any apparatus used for the purpose of counter-extension. This neatly devised little saddle is held in position by a strap, running to the headboard on each side, thus securing the patient in an immovable position. By fastening strips of adhesive plaster, previously secured to the leg, to a screw arrangement in the foot of the bed, he can produce any desired degree of extension of the limbs by simply turning the little screw at the foot of the bed; the chief advantage of the whole apparatus over all other instruments being the little saddle on which the patient sits, as it were, with comfort, he claims, rather than misery, as in most other methods. He announced himself as positively opposed to the old method of using stones and other suspensory weights to produce extension of the limbs, and then turned his attention to the treatment of fractured ribs. He brings the broken ends into place by raising the arms over the head, an original method by which he claims there is no trouble in adjustment. They are then held in place by a band of adhesive plaster around the body.

DR. H. O. MARCY, of Massachusetts, presented an experimental study of the *Comparative Value of Antiseptics*, in which he summarized the results of his experiments with alcohol, boracic acid, carbolic acid, bichloride of mercury, bichromate of potash, naphthaline, balsam of Peru, common salt, turpentine, glycerine, iodoform, and other germicides. He expressed the hope that Dr. Sternberg would be appointed to make further experiments, and that suitable aid would be furnished him for carrying on an elaborate scientific investigation in this promising field.

DR. LEWIS HALL SAYRE, of New York, next read a paper on

AMPUTATION BELOW THE KNEE-JOINT IN PREFERENCE TO "BRISEMENT FORCÉ," OR RESECTION, IN CERTAIN CASES OF DEFORMITY WITH ANCHYLOSIS, ILLUSTRATED BY TWO CASES.

He said that certain diseases of the knee-joint, unless treated with proper extension and counter-extension, result in more or less deformity, consisting of flexion and luxation of the leg backward, in which situation the limb may become fixed or solidified. If anchylosis is fibrous, it can be broken up, and use of the limb and joint frequently follows. If the solidification is bony, and the leg of the same length as the other, a V section should be made through the angle of deformity and the limb straightened and anchylosed in this position. But in cases where disease of the joint has occurred in early life and resulted in bony anchylosis and deformity, the limb below the joint grows more slowly than the other, and as after a V section through the bone, the limb does not grow, by the time the patient reaches adult life it becomes so short as to be practically useless. In these cases amputation below the knee-joint is preferable when performed by a modification of Prof. Smith's amputation at the knee-joint, Dr. Sayre preferring to saw through the head of the tibia rather than disarticulate at the joint.

Dr. Sayre cited two cases occurring recently in his own practice, in which he had made successful amputations below the knee-joint. One was performed eight weeks ago, and the patient is now walking on an artificial limb; the other, two weeks ago to day, and the limb was dressed for the last time last Sunday.

DR. E. M. MOORE, of New York, read an interesting paper on the

TREATMENT OF OLD CASES OF COMPOUND DISLOCATION OF THE ULNA IN CONNECTION WITH COLLES' FRACTURE.

In cases of fracture of the radius, known as Colles' fracture, there is also a dislocation of the styloid extremity of the ulna, which dislocation in many instances is not reduced and great deformity is the result of the fracture. In cases brought to him before the expiration of six months, Dr. Moore does not hesitate to re-break the united fracture, and attempts a reduction of the dislocation; but when the case has gone so long as not to permit of re-fracture, he exsects the extremity of the ulna, thus making a movable and useful joint. He narrated the details of several cases in his own practice.

DR. HYDE, of New York, bore strong testimony in favor of the position taken in the paper, and said that the method of Dr. Moore was the only way he knew to cure the deformity.

DR. QUIMBY, of New Jersey, said that, in his practice in cases of Colles' fracture, he had always used the straight splint, and had never had a single bad result, either in young or old.

DR. V. H. COFFMAN, of Nebraska, next read a paper on *Treatment for Tender Spines by Subcutaneous Incision.*

THURSDAY, JUNE 7TH, THIRD DAY.

DR. W. A. BYRD, of Quincy, Illinois, read a paper on

EXCISION OF BOTH HIP-JOINTS FOR MORBUS COXARIUS.

He said that, ever since the first suggestion of the removal of the head of the femur by Charles White, in 1769, for morbus coxarius, there has been great diversity of opinion in regard to the propriety of this operation, a few favoring it, but many condemning it as entirely useless. For while it might save the life of the patient it frequently left a miserably deformed being, incapable of locomotion without the aid of crutches or cane, and the chances of cure were no better than if the patient were left to depend upon the slow process of spontaneous exfoliation of the diseased bone—a process rarely accomplished before the death of the patient. Opinions, however, have greatly changed since the number of excisions have become numerous enough to compare with older methods. Dr. Byrd had been able to find a record of but two cases of double excisions. The patient, aged ten years, upon which he operated now goes without crutches up and down stairs and over smooth ground, though using crutches over rough ground. He read an account of her condition previous to the excision, written by Dr. Moses F. Bassett, April 12, 1881. Dr. Byrd removed the head and upper portion of the right femur, commencing the incision two inches above the great trochanter, and continued it downward, curving it so as to pass behind the great trochanter, ending five inches below its origin. The soft parts were pulled aside and detached carefully with the periosteum, from the bone, with a dental scraper. The head of the bone was thrown

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out through the opening, and, on account of the softened condition of the bone, it was divided just below the trochanter with pliers. There being an abscess over the greater trochanter of the left limb, it was freely laid open, and the trochanter removed with the pliers, there appearing to be no other portion of the bone diseased. Both wounds were dressed with balsam of Peru and oakum, and the child placed in one of Dr. W. P. Verity's splints.

DR. VERITY, of Chicago, here exhibited his splint and derrick, and explained their operation. He placed upon the platform an upright post, to which he attached a triangular frame, made of strips of wood fastened together by strong strap-iron hinges, and attached to the upright by means of a clamp. From the extremity of this triangle hung suspended, by a strong cord, the wire framework in which the patient lies, capable of adjustment to fit any desired position of the limbs. The triangular frame can also be adjusted at an angle, and is capable of being attached to a door post, or any such convenient upright. The entire apparatus is very portable, and can be packed up for transportation in a few seconds; while in this condition it occupies no more space than an ordinary violin box. Dr. Sayre, of New York, and Dr. Gunn, of Chicago, spoke in high terms of the splint.

DR. HENRY O. MARCY, of Massachusetts, next read a paper on the

SURGICAL TREATMENT OF INTESTINAL OBSTRUCTION.

He said that intestinal obstructions may well be subdivided into—

1. Chronic, which is gradual;

2. The late acute, which usually supervenes upon the first; and,

3. The early acute.

Under these divisions are included impaction of feces, fibrous and cancerous strictures, polypi, tumors, abscesses compressing the bowel, intussusception, and injuries; but we shall discuss now only the question of acute obstructions.

The first and most important consideration is not only an accurate, but a prompt diagnosis. Internal obstructions should be relegated to the surgical domain, upon precisely the same grounds as external obstructions. Granted that diagnosis of complete internal obstruction has been determined, the earlier operative interference is decided upon the better. In intussusception the old Hippocratic plan of inflation may be tried, and this is much more likely to succeed under anæsthetics. Dr. Thomas Hawkins, of New York, strongly advocates hydrostatic pressure. Early recourse should be had to gastrotomy, under the most careful antiseptic precautions.

Finding the obstructed portion, be guided by its factorage. If there are long bridles of peritoneal bands, then simple division may be all that is required. If a twist or intussusception, perchance these are easily remedied. What shall be done if necrosis of the intestinal tube has already supervened? One of two devices only is left for selection, *i. e.*, stitching the ends of the canal into the wound, with the hope of some further operative procedure, or resection of the necrosed portion, with very careful adjustment of the divided ends and mesenteric attachment. This must be done in such a manner as to bring the peritoneal surfaces in approximation, and in this way the wounded edges and mucous membrane are all turned into the intestinal cavity. Silk may be used, but properly prepared animal ligatures are to be preferred. Having restored the continuity of the intestinal canal, close the abdominal wound. This is effected precisely as in ovariotomy, with careful antiseptic precautions.

DR. GARCELON, of Maine, asked Dr. Marcy what his experience had been in abdominal section for intestinal obstruction, so far as good results were concerned.

DR. MARCY replied that his experience had not been very large, but some cases had been fatal, others successful in their outcome.

DR. MOORE, of Rochester, said that in making an operation for removal of any intestinal obstruction, he did not use the carbolic-acid spray, but was in the habit of pouring carbonic-acid gas into the cavity, believing the true theory to be not to cure the atmosphere but to keep the atmosphere out.

The paper evoked considerable discussion on the relative merits of aseptic and antiseptic treatment, which was participated in by Drs. Byrd, Murdoch, Keller, Moore, and Marcy.

DR. T. F. PREWITT, of St. Louis, next read a paper on

A NEW OPERATION FOR THE CURE OF RANULA.

He said: The methods recommended and practised by surgeons at this day consist either in the introduction of a seton, injections into the sac, or partial excision of the ranula. Of these, almost all modern surgeons prefer excision of a portion of the sac, total excision being impracticable. Having met with a case of double ranula recently, in which this partial excision, followed later by persistent catheterization, failed, it occurred to me that I might, by a plastic operation, secure a permanently patulous orifice.

Case: Fifteen years old; swelling under left lower maxilla nearly as large as a goose egg; fluctuated freely, some portions seeming hard, and projected into the mouth under the tongue. Diagnosis of ranula was made, and a portion of the cyst-wall in floor of the mouth was excised. A quantity of clear mucoid fluid spurted out as the cyst was incised. In the course of two or three weeks this had contracted and threatened to close, and catheterization was resorted to. In the mean time, a ranula had appeared under the tongue upon the right side, with translucent, bluish, thin walls, but not projecting beneath the jaw. This also was treated by excision of a portion of the cyst-wall.

In July the young man ceased to present himself; the orifices had closed, the sacs rapidly filled, and he was again brought to me in an alarming state from threatened suffocation. Both ranulæ were swollen and painful. Upon the left side, the swelling extended well down toward the clavicle and sternum and across the trachea in front. Upon the right side, the ranula was greatly swollen, meeting with that upon the left side under the chin in a continuous swelling from the angle of the jaw upon one side around to the opposite side. Both inspiration and expiration were obstructed, the patient was flushed and feverish, and it seemed as if tracheotomy might be necessary. I incised the cysts freely, permitting the escape of the accumulated fluids, and directed hot fomentations to be persistently applied. This gave speedy relief to all urgent symptoms, and as contraction took place, I then resorted to catheterization, with the view of preventing reclosure. This was persevered in for two or three months, and was more effectual upon the left side, for the reason that the bougie—a soft conical rubber, about No. 15 French—could be passed down for two inches, and could be felt below the margin of the jaw upon the right side; and when its use was intermitted for a few days, the opening would close completely. I determined, therefore, to make a permanent opening by a plastic operation on that side. I carefully dissected the mucous membrane of the mouth over the cyst, denuding a surface as large as a nickel. I then incised the cyst-wall, turned it over, tacked its free edge to the border of the mucous membrane of the mouth with fine silk sutures;

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union by first intention took place; the stitches were removed upon the third day, and an orifice was secured that has remained patulous to this time. This was in November last; the patient became irregular in his attendance, and finally ceased to present himself to have the left side catheterized. On the first of April he came to me with considerable accumulation on the left side, and the orifice closed. I repeated the operation on that side with a like fortunate result, and now the openings are patulous upon the right and left sides, and the patient has no trouble whatever from reaccumulation of the fluid.

DR. JOSEPH RANSOHOFF, of Cincinnati, next read an elaborate paper on

THE EARLY USE OF THE TREPHINE,

saying that a careful study of the vascular relation of a bone to its periosteum and medulla, led to the conviction that there could be no serious deviation from the normal in either without implication of the remaining parts. He stated these propositions: 1. That the exposure of the medullary cavity *per se* is unattended by deleterious consequences. 2. That the continuance of increased intra-osseous pressure is the main source of secondary changes. If these propositions are correct, it follows that in the very earliest possible use of the trephine, we possess an inestimable means of saving life in the acutest forms of bone disease, of curtailing by months, and even by years the course of others, and of preventing the deformities and operative mutilations that follow in the wake of even mild cases. Dr. Ransohoff gave interesting details of three cases, in which he had used the trephine with good results.

DR. GUNN, of Chicago, expressed very warm approbation of the paper, stating that it perfectly coincided with his own experience, which dated back more than a quarter of a century. He stated that in bone operations he poured into the wound from a teaspoonful to a tablespoonful of boracic acid, which he considered the best of antiseptic agents, and guarded against the too early closing of the bone by inserting pure white wax moulded into forms of suitable size for the opening, frequently boring a hole through the wax, making it essentially a drainage-tube.

DR. HYDE, of New York, also spoke in confirmation of the grounds taken in the paper.

DR. H. J. REYNOLDS, of Mich., next read a paper on

TREATMENT OF STRICTURE OF THE URETHRA.

He said no importance should be attached to the statement of a patient that his stream is of full size. The size may be evidence of presence of stricture, but not of its non-existence. For either large or small calibred stricture he prefered internal cutting and stretching with Otis's instrument to all other methods. He always, however, provided the patient with a full-sized sound, with instructions to pass it every few days for an indefinite length of time. If the stricture be too small for this instrument, he enlarged it sufficiently to admit first, a Thompson's or Maisonneuve's instrument, and then he used the Otis instrument carrying the enlargement even beyond the normal calibre to ensure the absolute and complete removal of all obstructions, without which the cure is liable not to be permanent; the smallest amount of obstruction or contraction remaining, he claimed, will furnish a groundwork for future gleet or contraction, or both.

He then gave a report of several cases treated by different methods, showing the comparative merits of each, among which was a case of extreme stricture involving external perineal urethrotomy without a guide, and in which even the prostatic portion was contracted in its anterior part. In this case, a pocket an inch deep and large enough to admit the finger, extended upward and backward in front of the prostate, the septum between which and the urethra he cut across.

SECTION ON STATE MEDICINE.

TUESDAY, JUNE 5TH, FIRST DAY.

DR. ALBERT L. GIHON, U. S. N., read a paper entitled

MEDICAL EDUCATION THE FUNDAMENTAL FACT IN MEDICAL ETHICS.

He said, superficial observers see in the question which has arisen in the State Medical Society of New York only an attempt to break down the guards which hedge in the kingship of our profession. They have, indeed, proclaimed afar that the time-honored traditions of the guild are to be ignored, and the right hand of fellowship given to the accused unbeliever. A year has passed since this question arose, and the dignified body of which we form a part, evaded meeting the issue face to face. A few voices were raised in explanation, but they were drowned in the cry: "Crucify him, crucify him, he breaks bread with a homœopath!" The august fathers of the Association frowned their displeasure, and the venerable puppets of antiquity were taken down from their dusty niches and displayed to exorcise this new demon of the nineteenth century. Outside the halls animated *ex-parte* statements were circulated, and a thousand delegates went away believing that a few individuals in the city of New York, mainly specialists, for purposes of personal profit were advocating the license to consult and confer with avowed homœopaths—this, and nothing more. Since then the matter has acquired a newspaper notoriety, and it is blazoned to the world as a fact, that the delegates of the State and County Medical Societies of New York have disqualified themselves for association with us, because they have sanctioned the formal recognition of homœopaths in clinical conference, and the popular sympathy of the profession has been aroused against these mercenary innovators. It is, of course, the business of the Judicial Council "to take cognizance of and decide all questions of an ethical or judicial character that may arise in connection with the Association," but every member of the Association has an equal interest with these twenty-one in the inquiry into the causes which have induced some of the most exemplary members of the profession to their course. Is it as alleged, that the Code of Ethics is an antiquated piece of verbosity? Does it really accomplish what it professed? Undoubtedly its purport was the exclusion from professional fellowship of all but those who are entitled to it by their intelligence, education, professional skill and acquirements, and that fearless probity that doth become a man. Has it done this? Does it do it to-day? Are there intelligent, educated, skilful, and upright men in the profession because of the Code, or in spite of it? It is unquestionably true there are no homœopaths in the American Medical Association, but are there any allopaths there? Does it say "brother" only to those who are fit to wear the mantle of the wise physician? These are questions for the Association to ask itself, and primarily it is for the State Medicine Section, in its purview over medical education, to discuss calmly, fearlessly, and thoroughly, and to go with its conclusions and announce them to the Association, however unpalatable or unpopular.

I do not propose at this time any formal criticism or arraignment of the Code of Ethics. Practically, three lines only are the shibboleth which the elect are required to utter—"No one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma." Prior to this it is stated that "a regular medical education is

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presumptive evidence of professional abilities and requirements;" but you may read the fifteen pages of the Code in vain for the definition of what constitutes "a regular medical education," and it is to this I now propose especially to limit my inquiry—whether, while straining at the gnat in the twelfth, thirteenth, and fourteenth lines of section one, article four, we have not swallowed a camel in the other eleven.

Mr. Chairman, the time has come when this Association must be up and doing. A few medical schools have undertaken the reform, but the movement that has been inaugurated, notably by Harvard, will avail little, so long as the Association unconcernedly witnesses and indirectly countenances the wholesale manufacture of doctors elsewhere—by accepting their membership without question of their competence. The time has come when something more than paper bulwarks shall be considered defence for our orthodox stronghold, and paper partitions sufficient to separate the sheep from the goats. The time has come for us to act, and it is eminently proper that the Section in State Medicine shall be the scene of action. The discussion in New York has made it impossible for us to remain indifferent spectators. I trust that no member of this Section has been misled into believing that any of the distinguished men who have taken part in this agitation have asked for anything that involves, in the least degree, any concession to the claims of homœopathy, allopathy, or any other exclusive dogma; that none of them have suggested, advocated, or desired any arrangement that can provide for or permit the joint treatment in any case by themselves and homœopaths, or any other paths. They have, however, claimed the right to give their opinion to any one who asks for it, and is willing to pay for it—to tell any sick person what he thinks of his case, and what he considers ought to be done. In this they give no sanction to the "irregular," whoever he may be, who has sought their advice, even though this irregular may be even wiser than that regular who castrates in orchitis and gives his puerperal woman a Russian bath. The very fact of his advice having been sought is an admission on the part of the irregular that he has done wrong or knows not what to do, and if, as alleged, these irregulars have not sought these consultations, then none will be, and the storm is but a tempest in a teapot. It is for you, however, to determine decisively whether you will place under the ban the man whose only offence has been to say to one of these irregulars, "You are doing wrong;" or will exclude from the ranks of the profession that one of your distinguished colleagues in New York, who, when called in consultation in a case of difficult labor, requiring instrumental interference, did not stop to examine the diploma of the attending physician, but went to work, finding him an exceedingly expert assistant, and learned when the patient had been rescued from danger that he had been coöperating with a homœopath; or will threaten the young road surgeon, who, at the close of the meeting at St. Paul, asked me whether he should operate in a case of caries of the tibia in a poor woman at a station where the only physician was a homœopath. "Do it if you dare. You shall never cross our threshold if you do. Ler her die first."

[This paper caused very considerable comment among the members of the Association, and when it became known that Dr. Gihon had been nominated as one of the Vice-presidents of the Association by the Committee on Nominations, active steps were at once taken to reject the nomination.

The Committee on Nominations, of which Dr. Gihon was a member, was reconvened and his nomination reconsidered. Dr. Gihon then offered a formal written statement to the Committee that he was in favor of the Code of Ethics of the American Medical Association; in consideration of which it was resolved that the report of the Committee, as originally adopted, should be presented to the Association, together with the written statement of Dr. Gihon.]

WEDNESDAY, JUNE 6TH, SECOND DAY.

DR. H. A. JOHNSON, of Ill., presented a statement of the work done by the

ILLINOIS STATE BOARD OF HEALTH.

This paper set forth what the Board has accomplished since its organization, in 1877, for the profession. It is the purpose of this Board to root out all incompetent men practising medicine in that State. At the date of the foundation of the Board, the profession embraced 7,400 individuals, and was composed of 3,600 graduates in medicine, and 3,800 non-graduates, itinerants, and nondescripts, who combined various other vocations with that of doctor. These, almost without exception, belonged to some of the irregular schools. A very small portion of this number now remains, through the efforts of the Board, and the existence of those that remain is due to what is known as the ten years' prior practice clause of the medical practice act.

THURSDAY, JUNE 7TH, THIRD DAY.

The following resolutions concerning

MEDICAL EDUCATION,

offered by DR. GIHON, in connection with his paper on the first day, were taken up and discussed.

Resolved, That the Section in State Medicine urges upon the Association the necessity for at once taking steps to exclude unqualified members from the profession by refusing fellowship to illiterate, ignorant, and incompetent graduates.

Resolved, That the Association be recommended to authorize the Section in State Medicine to act as a standing committee on medical education, the several elected members being required to communicate without delay (I) with the several State medical societies, and the Legislatures of the States they respectively represent, with the object of creating State Boards of Medical Examiners, where such are not already in existence, whose certificate shall be necessary to the issue of a license to practise medicine in that State; and (II) with the authorities of every regularly organized medical college in that State, which has not already taken such action, urging upon them, first, the requirement of a proper preliminary education of matriculants, to embrace at least a knowledge of English orthography and grammar, the etymology of the more common Greek and Latin derivations, and the fundamental rules of arithmetic, to be ascertained by a written examination preserved for reference; and second, greater care in ascertaining the fitness of candidates for a degree, by making their final examination in part a written one, to be kept on record, and accessible for inspection by State Boards of Medical Examiners, Board of Censors of medical societies, or other authorized persons requiring information as to the professional qualifications of graduates.

Resolved, That, in the opinion of the American Medical Association, medical colleges should confer upon graduates the degree of Bachelor in Medicine, such graduates to be eligible to the degree of Doctor in Medicine at the end of three years, after having given satisfactory evidence of their qualification to the Board of Censors of the State Medical Society.

Resolved, That Article II. of the plan of organization of the American Medical Association be amended by this additional proviso:

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Provided, That every permanent organized State, county, or district medical society entitled to representation in this Association shall be required to appoint a Board of Censors, who shall rigidly scrutinize the literary and professional qualifications of every candidate for membership therein, and hereafter no delegate shall be admitted to a seat in this Association who shall not have received the certificate of such a Board of Censors or of a State or National Board of Medical Examiners.

The first two resolutions were voted down, and Dr. Gihon then withdrew the remainder.

MEDICAL SERVICE ON OCEAN STEAMSHIPS.

DR. A. N. BELL, of New York, called attention to the condition of emigrant ships, and introduced a resolution as follows:

"Being impressed with the truthfulness and importance of the Memorial of the Parliamentary Bills Committee of the British Medical Association, under date of March 17, 1883, the American Medical Association urges upon the Congress of the United States the subject of competent medical and sanitary service and proper provision for its maintenance on board all transoceanic passenger vessels, and that a committee of five be appointed to promote this object and to report upon the condition of the subject at the next session." The resolution was adopted.

SECTION OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

WEDNESDAY, JUNE 6TH, SECOND DAY.

DR. L. TURNBULL, of Philadelphia, read a paper on

TINNITUS AURIUM AND THE DEAFNESS WHICH ACCOMPANIES DIFFERENT FORMS OF BRIGHT'S DISEASE,

in which he reported several cases, and presented the following conclusions: The symptoms of disturbances of hearing may be an assistance in the diagnosis of the early and obscure stages of Bright's disease. At times, all other symptoms being absent, only cardiac hypertrophy with auditory symptoms are noticed in interstitial nephritis, and the diagnosis may be confirmed by examination of the urine.

DR. FROTHINGHAM, of Mich., asked whether there were any pathognomonic symptoms. He thought that the eye and ear symptoms might be due to that disease of the arterioles which later attacked the kidneys.

DR. CONNOR, of Detroit, said that these aural symptoms would be a very valuable addition to our knowledge, if they were pathognomonic; but he had seen similar symptoms which had no connection with any systemic disease.

DR. TURNBULL, in concluding the discussion, said that he had not noticed any ataxic symptoms in his cases; the subject was too new for him to state whether the symptoms of serous effusion and injection of the tympanic membrane, which he had noticed in all his cases, were pathognomonic or not.

DR. J. L. THOMPSON, of Indiana, then read a paper entitled

QUESTIONS ON THE ETIOLOGY OF SOME FORMS OF LENTICULAR OPACITY,

in which he described a peculiar opacity of the lens, occurring chiefly in the lower periphery, which comes on suddenly, and remains unaltered for years.

DR. NOYES, of New York, said that he had seen similar cases quite frequently, and he divided them into two classes: Those accompanying myopia and being of a molecular form; and those in which the opacity is striated and is caused by choroidal retinitis. He thought the opacity was due to impaired nutrition of the hexagonal epithelium, and that it required years for its development.

DR. HOWE, of Buffalo, said that each such contribution to our knowledge of cataract only showed how much remained to be discovered in regard to its etiology. He mentioned a case of soft cataract in which the lenses were apparently exactly in the same condition, and yet under a similar operation the behavior of the two was entirely different. Reference was also made to experiments upon rabbits: in these animals there being a decided tendency to repair after injury to the capsule. With them, considerable opacities of the lens will sometimes clear up, so as to leave only a slight cicatrix.

DR. H. CULBERTSON, of Ohio, read a paper on *A Case Illustrating the Segmental Feature of Glaucoma.*

DR. J. O. ROE, of New York, then read a paper on

NASAL DISEASE, A FREQUENT CAUSE OF ASTHMA,

in which he stated that irritation and obstruction of the nasal chambers would give rise to asthma; and that the asthma of hay-fever was chiefly due to the nasal irritation.

DR. SEILER, of Philadelphia, said that he fully agreed with the author, and that in one case under his observation an attack of asthma had been produced by touching a tender spot in the nose with the end of a probe, and that all the asthmatic symptoms disappeared after the spot had been cauterized. He was also of the opinion that hay-fever is due to nasal catarrh of a hypertrophic variety, and that the mucous membrane becoming irritated by the pollen germs gives rise to the well-known symptoms. He had cured cases of hay-fever by removing the hypertrophic catarrh.

DR. FROTHINGHAM said that he could not see how inflammation of the nasal cavity could exist for any length of time without a tendency to extend into the mucous membrane of the bronchial tubes, and that then these cases would not be different from ordinary cases of the disease.

DR. ROE, in closing the discussion, said he was very glad that Dr. Seiler had supported him in his opinion, and that it was not necessary to have bronchitis in all cases of asthma, but that the congestion of the mucous membrane of the bronchial tubes might readily be produced, which in the beginning produced the asthma.

THURSDAY, JUNE 7TH, THIRD DAY.

DR. J. F. RUMBOLD, of Missouri, read a paper on the *Appearance of the Diseased Mucous Membrane of the Nose and Throat of Adult Patients.*

DR. J. J. CHISOLM, of Maryland, then read a paper entitled

IS ABSCISSION A PROPER OPERATION?

He said that the irritation of an artificial eye over a stump is greater than when a shell is carried in an eyeless socket, because in the latter case the surface of contact is reduced to a minimum. If, however, movement of the shell is as good after enucleation as after abscission, the latter operation has no advantage.

DR. FROTHINGHAM said that abscission should be abandoned. The uninjured eye should be the objective point, and no risk of sympathetic inflammation from the shell should be incurred for the sake of cosmetic considerations; further, that the abscission is a more difficult operation than is enucleation, and therefore the risk is greater. The stump is always a source of danger even after a lapse of years.

DR. C. J. LUNDY, of Detroit, had seen cases of total blindness from sympathetic ophthalmia after abscis-

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sion. He thinks that the wearing of an artificial eye over these stumps often produces great irritation; that he had seen a case of ossification of the ciliary body and choroid as the result of irritation from the wearing of an artificial eye over such a stump.

DR. THOMPSON, of Indianapolis, coincided most fully with the views expressed by Dr. Chisolm, and mentioned several cases of panophthalmitis following abscission; and two cases occurred under his own observation where two formerly healthy eyes were sacrificed and vision totally lost after the operation of abscission.

DR. CULBERTSON, of Ohio, said that he had never had an unfavorable result in abscission, and he thought his success was due to the fact that he did not put any stitches in the eyeball.

DR. CONNOR said he had seen disastrous results following the operation of abscission.

DR. NOYES said he had formerly performed the operation often, but had never seen bad results follow. In all these cases he had, however, advised enucleation of the eye. He thought that suppuration prevented sympathetic inflammation in the other eye, and in the case of a foreign body, he should always advise enucleation; and he thought that the safety of the uninjured eye was the main point.

DR. CHISOLM, in closing the discussion, said that formerly he had been in favor of abscission, but that now he considered an injured eyeball, whether from operation or from accident, a source of great danger.

SECTION ON DISEASES OF CHILDREN.

WEDNESDAY, JUNE 6TH, SECOND DAY.

DR. A. Y. P. GARNETT, of Washington, D. C., read a paper upon

EPIDEMIC JAUNDICE AMONG CHILDREN.

In his experience, he said, epidemic jaundice had been confined to children. He related the history of an epidemic which had come under his notice during the months of July and August, 1881. He had under observation six cases, of ages varying from two to six years. The cases occurred at that season of the year when the temperature attained its maximum elevation, and none were in parts of the city supposed to be exposed to malarial influences.

DR. BLAINE, of Pa., spoke of cases which had come under his observation, in which he had attributed the disease to heat.

DR. W. SHEEHAN, of New York, spoke of a case which had come under his observation on a warm, spring-like day in the month of February, the child not being properly protected against the weather. He expressed the opinion that in some cases cold was also an important factor.

DR. WM. LEE, of Baltimore, spoke of nervous influences as an exciting cause, and referred to a case which had come under his observation in midwinter.

DR. ALEXANDER HARRIS, of Virginia, then read a paper on

THE UNITY OF DIPHTHERIA AND MEMBRANOUS CROUP.

He claimed the identity of the diseases and thought that it was only necessary to prove the identity of laryngeal with pharyngeal false membrane to establish his point.

DR. SNOW declared his belief in the individuality of the two diseases. He said that one is a contagious disease, the other is not; one usually has its starting-point in the pharynx, the other in the air-passages.

THURSDAY, JUNE 7TH, THIRD DAY.

DR. GOOD, of Indiana, read a paper on

DENTITION.

He said that dentition was not classed as a disease, but the diseases which accompany it are numerous. He advocated lancing the gums when swollen, or when there is functional derangement of the stomach and bowels.

DR. EARLE, of Illinois, said that in teething infants he had checked severe diarrhœa, amounting almost to cholera infantum, by simply lancing the gums and without any medication, only paying attention to diet.

DR. GOODWIN ORTH, of Indiana, said that in his experience of thirty-three years, he had been in the habit of lancing the gums, and frequently found that it gave instantaneous relief, and he believed that the teeth came out more readily with scarification than without.

DR. J. B. CASEBEER, of Auburn, Ind., then read a paper on

PEDIATRIC MEDICINE AND ITS RELATION TO GENERAL MEDICINE.

He urged that diseases of children speak as plain a language, and require as direct remedies to control them as do those of the adult.

DR. NORMAN TEALE, of Indiana, read a paper on *Infantile Paralysis*, and detailed the history of a typical case.

THE EXHIBITION HALL.

The exhibition of pharmaceutical preparations, surgical instruments, and medical publications was held in the Tabernacle, a large but by no means handsome building situated about three blocks from Case Hall, in which the general sessions were held. The attendance of physicians was far from being large, in spite of the very handsome appearance made by several of the exhibitors and the attraction of a practically unlimited number of samples of all kinds.

Messrs. Park, Davis & Co. had a large space, and showed many of the new drugs of which they make a specialty, both in the crude and manufactured state.

McKesson & Robbins, of New York, had one of the handsomest exhibits in the Hall, and displayed among other preparations seventy-six different alkaloidal salts of the cinchona bark.

W. R. Warner & Co., of Philadelphia, had an attractive stand, and devoted especial attention to their new parvules for medication in small, often repeated doses.

C. H. Phillips, of New York, offered sterling attractions, in the estimation of visitors, by dispensing cups of a new preparation of phosphated cocoa.

Among other manufacturing pharmacists represented were Wyeth & Bro., Schieffelin & Co., E. G. Houghton & Co., Metcalf & Co., Mallinckrodt & Co., and Powers & Weightman, the last two firms exhibiting fine chemicals only.

One of the neatest exhibits was made by Lambert & Co., of St. Louis, whose ebony stand and rich Turkish rugs attracted considerable attention.

Among the surgical instrument-makers, John C. Frye, of Portland, Me., and John Reynders & Co., of New York, were the most prominent. Both of these firms had fine exhibits.

The publishers of medical books and journals were somewhat hardly treated, being relegated to an out-of-the-way corner. Messrs. Henry C. Lea's Son & Co., D. Appleton & Co., J. H. Chambers & Co., P. W. Garfield, and D. G. Brinton were all represented.

The general feeling among exhibitors seemed to be that a more centrally located hall might have been procured; but in other respects the Committee having charge of the exhibits acquitted itself admirably.

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AMERICAN SURGICAL ASSOCIATION.

Fourth Annual Session, held in Cincinnati, May 31, and June 1 and 2, 1883.

(Specially reported for THE MEDICAL NEWS.)

(*Concluded from p. 672.*)

AFTERNOON SESSION.

DR. J. M. BARTON, of Philadelphia, presented a

SPLINT FOR EXTENSION OF THE WRIST-JOINT

which he had used for some years, in synovitis of the wrist-joint. The splint was a light one, yet is capable of making powerful extension, is not conspicuous, and permits some use of the fingers. It was made of wire, is eleven to thirteen inches long, and from one and a half to two inches wide. It is placed on the palmar aspect of the forearm, reaching from a little below the bend of the elbow to below the lower end of the metacarpal bones. The extension is made by a piece of heavy rubber elastic, which is fastened to a cross-wire at the upper end, and passes over a roller at the other end of the splint. The speaker then entered at some length into the consideration of the advantages of his invention, and explained fully its conveniences by making a practical application of it.

DR. DAVID PRINCE, of Jacksonville, Illinois, presented his

RECTAL OBTURATOR,

which consists of a hollow rubber ring, capable of being expanded by air or water, and provided with a central aperture through which a tube or hollow bougie may be passed for conveying water into the intestine. In using the obturator, it is pushed into the rectum, through the sphincter, then distended, and the bowel filled through the bougie. Its applicability is obvious for all cases in which a large quantity of fluid is to be introduced into the rectum, whether the fluid be water, for the relief of constipation, obstipation, strangulation, or simply to reduce the temperature by thinning the blood; nutritious fluids, or alcohol for stimulation or anæsthesia.

DR. PRUITT stated that he believed that an ordinary syringe would answer every purpose of the obturator, and cautioned against the danger of over-distention and consequent rupture of the bowel. Then again, said he, it is in some cases exceedingly difficult to make a differential diagnosis in cases of obstruction of the bowel; and while the injection of large quantities of water or of air in cases of simple obstruction might do very well, in cases of volvulus it would lead to a rapidly fatal result.

DR. CAMPBELL expressed his unbelief in the value of nutritious enemata. How, he said, can nutritious substances be digested in the rectum? They must enter the small intestine.

DR. PRINCE replied to these objections by stating that, in the first place, it was not intended that great force should be used in injecting the fluid or air, but only that a large quantity might be introduced, the obturator enabling the patient to overcome the involuntary efforts at evacuation which followed the first introduction of fluid. Used in this way, he could not only force water up to the point of obstruction, but could estimate, from the quantity required to reach that point, the location of the difficulty. As for Dr. Campbell's objection, he considered that an argument in favor of his instrument, for the great reason for the failure of nutritive injections, he thought, was that too small a quantity was always employed, and the fluid did not pass far enough into the bowel.

Next in order was a voluntary paper on

STRICTURES OF THE ŒSOPHAGUS,

with cases and the treatment, by HENRY F. CAMPBELL, M.D., of Augusta, Ga. The frequency of injuries to the œsophagus, resulting in obstruction and disability of the tube for the transmission of food to the stomach, he said, gives them an importance well worthy of the careful consideration of the surgeon. The object of the present paper was, however, mainly to express the experience of the author in a number of cases which it had fallen to his lot to witness privately or in consultation. The muscular layers of the œsophagus make it very liable to spasmodic contraction upon any irritation of its mucous membrane. The comparison which most authors make of the œsophagus and urethra is most fallacious. The recently recommended division of strictures of this tube is a highly objectionable procedure, and is in every way inferior to the safer although slower process of dilatation; and he had as yet found no case that was not amenable to this treatment. He then entered briefly into a discussion of the causes of the complaint, and narrated four cases which had come under his own treatment. In all of them, the stricture had been remarkably close and firm, but by the frequent and long-continued passage of sounds, he had succeeded in effecting a cure. He considered the ordinary flexible olive-pointed urethral bougie the best form of instrument for the early treatment, gradually increasing the size until a large œsophageal sound can be passed.

DR. PRINCE reported the case of a child two years and a half old, that had swallowed lye, and in which he had gotten relief by the passage of an electrode, using the constant galvanic current. The third attempt succeeded in reaching the stomach. In a week solid food could be eaten.

Owing to the lateness of the hour, DR. C. H. MASTIN, of Mobile, Ala., was compelled to give only a very brief sketch of the points he had intended bringing out in his paper, entitled

SOME REFLECTION UPON THE OPERATION OF EXTERNAL PERINEAL URETHROTOMY.

He stated a few of the better methods and described briefly the method he employed in certain cases. He closed by cautioning against the use of persulphate of iron in hemorrhage from such operations.

DR. CAMPBELL, of Augusta, Ga., now presented

A NEW SPLINT

devised by Dr. John S. Coleman, of Augusta. The instrument consisted of two felt splints for the forearm, secured by leather bands with straps and buckles, one below and one above the elbow. A brace connected with these bands prevented all motion. The splint was obviously intended for the treatment of fractures in or about the elbow.

THE PRESIDENT now called an

EXECUTIVE SESSION,

in which the following business was acted upon:

A motion to increase the membership from one hundred to one hundred and fifty was lost.

VOLUME OF TRANSACTIONS.

The Recorder was authorized to publish in a handsome and substantial volume, the full report of the Transactions of the Association during the four years of its existence.

The following

NEW MEMBERS

were elected: H. K. Steele, M.D., of Denver, Col.; Herbert Judd, M.D., of Illinois; Thomas M. Markoe, M.D., of New York.

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THE LIBRARY AND MUSEUM OF THE SURGEON-GENERAL'S OFFICE.

A resolution was adopted petitioning Congress for an appropriation of sufficient money to complete the publication of the indexed catalogue of medical books in the National Medical Library, and to provide for the Museum and Library, a fire-proof building.

THE CODE OF ETHICS.

The following resolution was offered by the Council, to whom the subject had been previously referred, and was adopted by the Association:

Resolved, That the Secretary be instructed to address a communication to each Fellow, active or honorary, who is alleged to have violated the Code of Ethics adopted by the American Surgical Association, and request him to withdraw if the allegations be true.

THANKS TO THE RETIRING PRESIDENT.

The Secretary then read the following resolution offered by DR. W. W. DAWSON:

Resolved, That a vote of thanks be returned to our retiring President, Samuel D. Gross, and that the members of the Association unite in the hope that he may be long spared to meet with us, to cheer us by his presence, and to guide us by his wise counsel.

AN ANNUAL BANQUET.

It was also resolved that hereafter a banquet should be given at the expense of the Association, the local committees of arrangements to make all necessary provisions for the same.

PRESIDENT GROSS then made the following

VALEDICTORY.

Let me congratulate you, gentlemen, upon the success of this, the Fourth Annual Meeting of the American Surgical Association. I have been your presiding officer from the inception down to the present moment. I feel honored, and highly appreciate what you have done for me. In all your deliberations I have endeavored to act with an eye single to the interests of the Association, and with that impartiality which has always characterized my actions in all my relations to the Association.

Now that I am about to retire from the discharge of these duties, I am assured that the interests of the Association will be perfectly safe in your hands and the hands of my successors. I have no greater ambition, gentlemen, than to live in your affection and your esteem, and to witness the ever-increasing success of the Association. Its success is closely associated with the remainder of my life, for I believe that we have established an Association that will yet exert a great power for good in the land; and when I die, as I must, I hope you will bear in mind that I trust to your keeping the good of the American Surgical Association.

God bless you, gentlemen; and may you wend your way home to receive that welcome which I know will be extended to you. May God bless you in all your relations in life, and I hope that you will always be faithful to the interests of your profession, and faithful to the Code in connection with which we have carried on our transactions.

The Association then adjourned, to meet in Washington, D. C., on the Wednesday preceding the annual meeting of the American Medical Association in 1884.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, April 27th.

(Specially reported for THE MEDICAL NEWS.)

(*Concluded from page 638.*)

THE PRESIDENT, R. A. KENNEDY, M.D., IN THE CHAIR.

THROMBOSIS AND EMBOLISM OF THE SUPERIOR MESENTERIC ARTERY.

DR. OSLER showed the specimen from the preceeding case, and referred to other instances which he had met with. In Dr. Wood's case, the fatal result was directly due to infarction of the bowels, caused by a thrombus in the superior mesenteric artery, the orifice of which was narrowed by a large button of atheroma. This had ulcerated on the surface, and a thrombus had formed which completely blocked the vessel for an inch and a half. This was the third case he had met with of plugging of this vessel, and as the condition was rare and the effects peculiar, he would refer to them.

In February, 1877, a woman aged about 75, was admitted to hospital under Dr. Ross with necrosis of the femur. She was seized with severe abdominal pain, vomiting frequent, diarrhœa at first, and then symptoms which pointed rather to obstruction, persistent vomiting, and great distention of the belly.

At the autopsy the small intestines were found greatly distended and of a deep livid-red color; no inflammation of the peritoneum but about one and one-half pint of bloody serum in the sac. The coats of the bowel were swollen and infiltrated with blood and serum. For about a foot from the pylorus the appearance of the gut was normal, and the last six or seven inches of the ileum were also healthy. The mucosa was deeply congested, soft, and readily scraped off. The mesentery was congested and infiltrated. In the *heart*, the mitral valve presented numerous recent warty vegetations, soft, pedunculated, and easily torn. The aorta was moderately atheromatous. Dissection of the cœliac axis showed the splenic artery blocked by firm brownish thrombi, which extended from about an inch from the hilus into the branches of the second and third degree. The organ was small and had a turbid, reddish-brown appearance. The hepatic artery was occluded by a firm thrombus, which began near the bifurcation and extended into both branches. The superior mesenteric artery contained a firm brownish-yellow clot, which began about a quarter of an inch from the aorta and extended an inch and a half into the two main branches. Before this chief division six smaller vessels were given off, all of which were plugged. In tracing down the large branches, two of them contained firm thrombi about an inch from the bowel.

A second case was the following:

J. C., aged 40, an engineer, large, muscular man, patient of Dr. Gardner. Good health up to a year before death, when he began to suffer with pains in the back. While wheeling a barrow full of cinders, was suddenly seized with intense pain in abdomen and groins; became faint; fell to the ground, and vomited. He lived for a week after. The chief symptoms were persistent vomiting, which resisted all the usual remedies; severe diarrhœa; great pain in abdomen, which was distended. The voice was husky; eyes sunken; features pinched, and the whole appearance choleraic. The stools were thin, and at times blood-tinged. The temperature did not exceed 101°; pulse was small and infrequent, rarely over 90. The autopsy revealed an abdominal aneurism, involv-

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ing the aorta just at the diaphragm. ... rior mesenteric and renals were given ... There was a ... iful dissecting aneu... part of the a... al aorta and the i... had passed ... sac beneath th... hinder part ... rta, and on the ... had passed ... iac, elevating ... narrowing th... On the righ... ternal iliac, i... externally b... and a thin s... blood extend... pelvic periton... n the lumba... small intestine... llen, of a ... color; the wall ... d with blo... They contained ... d-stained f... rior mesenteric a... from the ... part of the sac, ... ice was ... half an inch withi... s was a ... fibrinous lining of ... ch had ... nd carried into th... ere wa... gulum about it, ... listal s... mesenteric vei... and ... ened and infiltr... tionally, the ... d, when plug... bowel take... ot be estab... els do ex... ure is n... ies of ... ded. ... portions ... dislodged ... hief cause ...

DR. ALLOWA... ecimen. A g... cember 8th, ... lling in the ... or on the right ... nding to within ... did not complai... anuary 22d, wa... l to have increas... , loudest over t... h, and fading tow... eart was displaced ... l. The child waste... to grow, until it ap... n, no œdema of leg... appetite and digestio... he autopsy revealed a... art of the abdomen, p... it was attached. The... e embedded on the left ... uodenum was stretched ... ly peeled out, and broug... h were deeply embedded ... rface, were several large ... overlapped the cæcum. ... enlarged, sarcomato... d at the convex bo... renal substance. ... re compressed, and ... he right iliac artery w... masses; microscopi... mall round cells, with ... hat which accompani... is shown under the n...

NCREAS; SECONDARY ... esented the specime... man, aged 52, who d...

... supe... he sac. ... lower ... blood ... at the ... , and ... an... ex... c... fid a ... t. ... The ... red ... um. ... pe... ent ... out ... he ... ed ... rm ... ot. ... ne ... rteri... hemo... e ... at ... c...

in the General Hospital. She had not had any symptoms pointing to abdominal trouble, but there were ... ess of breath, cough, and latterly great lividity. ... sion note was deficient in resonance all over the ... nd dull at right base; numerous whistling and ... râles. At the autopsy, there was found a small ... cer of the body of the pancreas, not involving ... d or compressing the duct. Both lungs were ... with masses of colloid cancer, and presented a ... able appearance from the number of the trans- ... jelly-like tumors. Many of them were isolated, ... formed large irregular areas, as the right base. ... lveoli of the cancer, distended with the colloid ... nce, could be plainly seen.

... ATMIC COMA, VERY SLIGHT RENAL CHANGES.

... t falla... ER referred to the case, and showed the ... tricture... hich illustrated the necessity of microscop- ... ure, and i... n of the kidneys before pronouncing on ... ugh slower p... diseased condition. A man, aged ... d no case that ... found by the police in an uncon- ... w... en entered brie... ght to the hospital at noon on ... atio... complaint, and ... 4.30 P. M., he was profoundly ... hy or ... der his own tre... pupils of moderate size; no ... y-six, was ... d been remark... as drawn off, found to be ... e, and brou... t and long-contin... ed casts—hyaline and ... When seen a... eeded in effe... of ankles. Death ... livid, and cold ... exible c... d some œdema of ... ry. The urine wa... instru... early as not specially ... minous, and cont... arge œs... ere undersized, ... There was no o... hundred and ... M. The brain ... ase of a c... smooth, not ... nes, but the su... llowed lye, ot very firm; ... rse lesions. T... passage of a... n; arteries ... ninety gran... ic current. Th... pale areas ... les detache... g the stomach. ids. The ... ee granul... ficial in- ... duced; n... the hour, DR. C. H. ... es were ... Close e... lled to give only a v... anular, ... estid intended bringing tained ... owed ... ns ap- ... pyram... THE OPERATION OF ophic ... a super... URETHROTOMY. s an ... r chang... er methods and descri... swollen, gr... ed in certain cases. ... g-tubes co... the use of persulphate ... the sectio... operations. ... hrivelled, atr... Ga., now presented ... f them there wa...

... llowing specimens... LINT ... nan, of Augusta. The ... splints for the forearm, ... traps and buckles, one ... A brace connected ... motion. The splint ... eatment of fractures ...

... HE AORTIC ARCH. ... middle thyroid artery, ... inate. It passed up the ... n the trachea and divided, ... cricoid cartilage, into two ... he right and left side of the ...

... f the left carotid arising from ... instead of from the arch. This ... ng the commonest variety of ab- ... being the normal arrangement in ... e dog, rabbit, cat, etc. ... al arising from the arch between ... avian arteries. It was of ... oral was very small, not ... ill. The branches from ... case came off separately, ... t.

... AVA, OR PERSISTENCE OF ... OF CUVIER. ... d from a female subject, ... nt vein was the size of a ... the transverse or left in- ... reduced in size, as is the ... t is larger. This ...

ON, ... s acted upon: ... rship from one hun- ... lost. ... CTIONS. ... to publish in a hand- ... he full report of the ... during the four years ...

... BERS ... M.D., of Denver, Col.; ... ois; Thomas M. Markoe.

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met with, and he stated that the left duct of Cuvier persists normally in birds and some mammals.

(3) A PREPARATION OF AN ABNORMAL RIGHT OBTURATOR ARTERY GIVEN OFF FROM THE EPIGASTRIC.

The obturator passed to the inner side of the femoral ring.

(4) DISSECTION OF A CASE OF TALIPES VARUS (LEFT).

Dr. Shepherd obtained this specimen from a subject in the dissecting-room, aged about 45. The foot had never been operated on, and was a pure case of talipes varus. The deformity was due, principally to the contraction of the tibialis anticus, extensor proprius hallucis, and extensor communis digitorum muscles. Operation by division of the tendons would have relieved the deformity.

PUERPERAL CONVULSIONS.

DR. ARMSTRONG read a paper on three cases which had been under his care.

Case I.—Mrs. P., aged 30, second pregnancy, delivered February 4, 1881. A fortnight before delivery she complained of headache, dimness of vision, and pain in the abdomen. The feet, hands, and eyelids were swollen, and the urine was highly albuminous. She lived out of town, and was not seen again until the morning of her confinement. Found os dilating and parts normal; the œdema had almost disappeared. Fearing convulsions during an absence of a few hours, she was ordered ℥j of chloral every hour. On returning, found that she had had a severe convulsion. Os was now fully dilated, but while making the examination a convulsion came on; chloroform was at once administered, the membranes ruptured, and the child delivered with the forceps. Considerable hemorrhage followed. The child was still-born.

Case II.—Miss M., aged 29; when first seen, February 10th, had been in labor twelve hours. Os dilated, membranes ruptured, and head well down on perineum. Pains were strong, and recurred every two or three minutes. She complained of inability to move the right arm, and there appeared to be some degree of feebleness in it. No œdema effect. In a couple of hours the child was born. Just after the removal of the placenta, she was seized with a severe convulsion; chloroform was given and liq. opii sed. ♏xxx injected hypodermically. After the convulsion had passed away the patient remained unconscious, and remained so through the day; no paralysis; pupils equal. In the evening she had three mild convulsions; one-fourth of a grain of pilocarpine was injected, the loins dry-cupped, and ℥j of chloral given per rectum. Urine drawn off and found highly albuminous. Pulse 70, temperature normal. February 11th, no return of consciousness; will not swallow liquids. Pulse 110, temperature 101°. In the evening, coma had deepened. 12th. Pulse 132, temperature 102.5°; fourteen convulsions through the night; gave one-fourth of a grain of digitaline (Parke, Davis & Co.) and the pulse fell to 116. Leeched the temples; coma deep; pupils contracted. At 2 P.M., one-half grain of pilcocarpine, and the digitaline repeated. Slight facial paralysis on right side. She grew rapidly worse, temperature rose to 104°, had two more convulsions at 8 P.M., and died shortly after midnight. At the autopsy, the vessels of pia mater distended; frontal lobes covered with extravasated blood, which extended on and appeared to come from the parietal lobe of the left side. On section of the organ (Pitres' method) prefrontal and pediculo-frontal sections normal. The frontal contained on the left side, the anterior wall of a cavity which held a large clot, which reached the cortex. The parietal section cut the centre of the clot, which measured four by four centimetres; no blood in ventricles. The kidneys were enlarged and pale, capsules adherent, epithelium in state of granular swelling, veins much engorged. In this case it is possible that the hemorrhage may have taken place or have begun before the convulsions set in, as she complained of numbness in the right shoulder, and loss of power in the right arm.

Case III.—Mrs. S., aged 35; second pregnancy. Sent for on Sept. 15, 1882. Patient had had a convulsion two hours before my arrival, and during the visit, a second. No sign of labor; fœtal heart-sounds distinct. She complained of headache, and was vomiting. Urine highly albuminous. Ordered chloral, ℥j, per rectum, to be repeated whenever patient complained of any special head symptoms or twitchings. Three weeks elapsed without any further trouble, during which time she had sometimes two or three doses of chloral in the day, and again, two or three days would pass without any. Diuretics were given continuously, and occasionally a purge. The urine remained very albuminous. Patient was delivered of a healthy, living child, and made a good recovery. This case bears on the question of the induction of labor on the appearance of convulsions. The patient went twenty-two days after two severe attacks, and then did well.

DR. WILKINS exhibited sections of the kidney of the second case, which showed granular degeneration and swelling of the renal epithelium, and unusual distention of the small veins. In sections of the medulla, the veins were also greatly distended, and in one portion there appeared to be minute capillary extravasation. With regard to the induction of labor, in a case which he had last August, when the convulsions began labor had set in, and the fœtal heart-sounds were strong. The attacks followed every hour, and the heart-sounds of the child become weaker. He then delivered with forceps. The child had convulsive paroxysms for twenty-four hours. In this instance, he believed that if the delivery had been longer delayed, the child would have been dead.

DR. ALLOWAY referred to the various views current regarding the etiology of eclampsia, and to the possible effect upon the child of the uræmic condition. In the treatment, he had been using lately large doses of morphia—two or three grains hypodermically—as recommended by Clarke, of Oswego.

DR. RODGER had had very many cases, and had tried all the forms of treatment. In the last two, he had used morphia in large doses, but as venesection was also employed, he was in doubt as to which to attribute the good results. Chloral and chloroform had proved useless in his hands. In the uræmic convulsions of ordinary Bright's disease, he used pilocarpine, but had not been impressed with its benefits in the puerperal condition.

DR. TRENHOLME remarked that the mental state of the patient was a factor in the causation; thus, the anxiety and grief of unmarried women at this period was, he felt sure, a predisposing cause. When the contraction of the uterus appears to usher in the convulsion, his practice is to hasten labor. The treatment varies with the case. When the patient was plethoric, he bled freely; but he had usually found chloroform, supplemented by chloral and bromides, controlled the convulsions. The death of the child he attributed to separation of the placenta from the uterus, thus cutting off the circulation, and inducing suffocation.

DR. RODDICK stated that, some years ago, when engaged in midwifery practice, he had found chloral of the greatest value in a number of cases. What he wished to call the attention of the Society to, was that, some years ago (1876), their colleague, Dr. Fuller, who had since removed to Grand Rapids, Mich., had read

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a paper on convulsions, in which he advocated the treatment by morphia, in full doses. He remembered well that, at the meeting, Dr. Fuller was almost alone in his views; he would now find many supporters.

DR. PROUDFOOT suggested that large doses of chloral might in some cases account for the death of the child.

DR. CAMERON thought that the convulsions were not always due to kidney complications and uræmia. He had recently had a case of an epileptic woman, who had a severe convulsion shortly after delivery. He had treated two cases satisfactorily with morphia. The want of success with chloral he attributed largely to the fact that it was not absorbed.

DR. WOOD relied chiefly on venesection. In one case, recently, in which convulsion came on after delivery, he had bled to fourteen ounces, with good effect; but the patient now had persistent anæmia.

DR. OSLER remarked, on the occurrence of cerebral hemorrhage in puerperal convulsions, two cases which had been met with in the University Lying-in Hospital during the past few years, and he had shown, at the last meeting, a specimen of ventricular hemorrhage from one of them.

DR. KENNEDY believed that in all cases in which uterine contractions were present, and were possibly the exciting cause of the convulsions, labor should be hastened. He used chloroform, and gave chloral and bromides. Venesection was of most value before delivery. He was in the habit, in cases of convulsions, of not exercising any pressure on the uterus, but rather favored slight flow of blood.

DR. CAMPBELL was glad to hear the general expression of opinion in favor of venesection, a practice in which he had the fullest confidence.

DR. ARMSTRONG then briefly replied.

MASSACHUSETTS MEDICAL SOCIETY.

One Hundred and Second Annual Meeting, held at Boston, June 12 and 13, 1883.

(*By Telegraph.*)

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 12TH, FIRST DAY.

MORNING SESSION.

THE Annual Meeting of the Massachusetts Medical Society was called to order in Huntington Hall, at the Institute of Technology, Boston, at noon, by the VICE-PRESIDENT, DR. JOHN H. MACKIE, of New Bedford, who announced that the first paper to be read was,

A CONTRIBUTION TO THE STUDY OF THE TUBERCLE BACILLUS,

by H. C. Ernst, M.D., of Jamaica Plain. The author first referred to the announcement last year of Koch's discovery of the bacillus tuberculosis, which he claimed to be the cause of tubercle. The question of the inoculability of tubercle has attracted increased attention since the promulgation of the views of Koch. His assertions on the subject have been carefully fortified by numerous cultivations and inoculations, and but very few of the many observers who have examined tubercular tissue for the bacillus have ventured to deny its existence. The author then gave a general review of the subject.

Fräntzel, he said, has observed three hundred and eighty cases of phthisis, and has examined eighty other cases of lung diseases, and always with negative results. In every case of phthisis he has found bacilli; in five cases of phthisis no *tubercle* bacilli were found; in other cases, where bacilli were found, none of them were cases of cheesy infectious phthisis. He concludes that the presence of bacilli determines the presence of tuberculosis.

At a meeting of the Vienna Society, Spina read a paper on the subject of Koch's bacillus. He bases his rejection of Koch's theory upon the fact that the bacilli were found to act differently toward fluids from what was supposed. He gives the results of observations as follows: Micrococci of many kinds were stained blue on a brown ground. *A.* In bronchitis sputum. *B.* In sputum of bronchial asthma. *C.* In sputum of diffuse bronchitis. *D.* In the furred tongue of non-phthisical patients. *E.* In the lochia of non-phthisical lying-in-women. *F.* In the sputum of cases of pneumonia. *G.* In the stools of typhus-fever patient. *H.* In the expressed fluid of a case dead of malignant œdema, etc. Stricker addressed the Society in support of Spina and his methods, and Klebs gave the following summary:

1st. That the tuberculosis process is caused by organisms. 2d. That the micrococci are present in the albumen cultures as well as in youngest form of inoculated tubercle. 3d. That the development of the tubercular process begins soon after inoculation. Completely formed tubercles appear only after a longer period, but before their appearance there is extensive cellular deposit; the same primary method of distribution is found in human tuberculosis, in which all the traces of these retrogressive formations in the mesentery and omentum are found in cases of pulmonary tuberculosis. In other cases cheesy foci form in the organs. All the work upon this subject has been for the purpose of identifying the bacillus and determining the frequency of occurrence in tuberculous lesions. The lungs, liver, spleen, kidney, peritoneum, bronchial, mesenteric, and inguinal glands, pia mater, and conjunctiva of the eye have been examined and bacilli have been found. They are less numerous in old or slow processes. The result of my observations is that their presence is diagnostic of tubercle. Bacilli have been found in the bloodvessels and in the lymph-channels. I have never seen anything but a bacillus staining red on a blue ground. The method of staining which I have employed is Ehrlich's.

Record of the examinations of different organs for the detection of bacilli.—A guinea-pig inoculated in the groin with a few drops of tuberculous sputum in December, 1882, died in the middle of January, 1883. Bacilli found in liver, spleen, and peritoneum. 2. A guinea-pig inoculated in the same manner as the preceding, died January 13, 1883. No change in any organ but the liver. 3. A guinea-pig inoculated as the preceding in December 28, 1882, died in March, 1883. The lungs presented no abnormal appearance; bacilli in spleen. 4. A guinea-pig inoculated on March 13th with tuberculous sputum in inguinal region, died in ten days. No bacilli except in spleen; cellular tissue at point of inoculation stuffed with bacilli. 5. A Guinea-pig inoculated in the same manner as first three in December, 1882, died, after emaciation, on April 2, 1883. All organs showed tubercular infiltration, and bacilli were found in lungs, liver, spleen, kidneys, inguinal glands, and skin under the point of inoculation. 6. A guinea-pig inoculated in the eye. The lungs, liver, and glands showed signs of disease, and bacilli were found in giant cells and alveolar walls of portion of lungs, and in the liver. 7. A child of three and a half years, dead of acute miliary tuberculosis. Lungs, liver, and mesenteric gland showed bacilli very distinctly; none in the liver and peritoneum. 8. A cheesy bronchial gland, removed three months before examination and preserved in absolute alcohol. Bacilli were found in plenty in cheesy portions near the edges, and in comparatively healthy tissues beyond. 9. A case of acute miliary tuberculosis in a child;

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bacilli in kidney in small numbers in region of straight tubules; also in omentum. 10. A specimen named "gland from autopsy." No evidence of bacilli; the specimen was very old, however. 11. Tuberculosis of lungs; a specimen of very old fibroid phthisis which was almost cicatrized, and no bacilli were made out. 12. Tuberculosis of peritoneum; bacilli were seen in small numbers in tissues in neighborhood of the tuberculous process. 13. This was a specimen sent in as a cheesy mesenteric gland from a case in which death was caused by a perforation of the intestines and subsequent peritonitis; bacilli were not found. 14. Contents of a cheesy cavity from the lung of a rapidly fatal case of tuberculosis, bacilli were found in increased numbers, in some cases cells being stuffed with them. 15. Scrapings from the walls of a lung cavity in an ordinary case of phthisis. Bacilli in immense numbers in some places the whole field filled with them. 16. Contents of a lung cavity in a case of slow tuberculosis. Bacilli in immense numbers. 17. Cheesy cervical gland. Bacilli on the edges in clumps and singly in the giant cells. 18. Case of tubercular meningitis dead after a month's illness, enlarged bronchial gland found and the pia mater full of minute granulations. Bacilli near the edges of the tubercular portion of the glands; pia mater showed fixed bacilli. 19. Tuberculous lung. Bacilli found in the edges of cheesy mass of tubercle, and in the centre, bacilli in apparently healthy tissue. 20. Tuberculosis of lung; this like the preceding was a mass of tubercle with cheesy fascia and cicatricial tissue. Bacilli in very large numbers, near the edges in recent degeneration and less in old fibrous portions. 21. Tuberculosis of a small cavity in cortex of the kidney. 22. Tuberculosis of eye, specimen removed last, and preserved in chromic acid; after standing forty-eight hours. A few bacilli were found in the nodule. 23. Miliary tubercle in a child. Bacilli in large numbers in cells in the tuberculous portions of the spleen.

In the mesenteric glands and in tuberculous ulceration of the intestines, it will be seen that in every case of inoculation tuberculosis was developed, and the microscope revealed bacilli in some portions of the organs of animals used in experiments. The series of sputum preparations is to be commended for its accuracy.

In a series of examinations of phthisical patients, the results were as follows:

1. Thirteen examinations of sputum, with positive results in eleven cases; bacilli varying from none at all to very numerous. 2. Sick for one year; hæmoptysis the first symptom; fourteen examinations with positive results in thirteen; bacilli found in large numbers. 3. Cough for six month; discharged relieved; eleven examinations with positive results in six; bacilli found in five successive examinations. 4. Cough for eight months; from February 17th to April 20th, ten examinations with positive results in nine; bacilli varied greatly in number. 5. Sick for seven years; February 10th to June 3d, fifteen examinations, positive results in nine; bacilli in very small numbers. 6. Sick for three years; hæmoptysis the first sign; from February 17th to June 6th, fifteen examinations with positive results in twelve; bacilli very few until examination, when number had increased greatly, but with no increase in the temperature. 7. Sick one year; hæmoptysis the first symptom; from April 20th to June 3d, four examinations, bacilli in every case. 8. Cough for one year; from May 10th to June 3d, three examinations; bacilli in increasing numbers. 9. Cough for two years; May 19th to June 3d, three examinations; many bacilli in every case. 10. Cough and hæmoptysis for ten years; February 17th to June 3d, fifteen examinations; positive results in six only; bacilli seen in very small numbers. 11. Case of pleurisy; March 14th to May 19th, seven examinations were made, with negative results in every case.

A comparison of the charts show that there is only a very general correspondence between the numbers of the bacilli and the variation of the fever-line.

Continued examinations of the sputum are necessary before the absence of the bacilli can be definitely secured. In rapid cases with free expectoration, there were enormous numbers of the bacilli to be found.

The results of this investigation may be summed up as follows:

A staff-shaped micro-organism exists in all forms of the tubercular process.

Second, it is more abundant in the rapid than in the slow forms of the process.

Third, its specific nature as the cause of the tuberculosis is claimed by Koch on the ground of his observations.

Fourth, the specific character has not been successfully refuted by trustworthy observations.

Fifth, its value as diagnostic evidence is very great, although its absence cannot be considered as excluding that process.

The only observer who has thus far attempted the repetition of Koch's culture experiments is Prof. Feltz, of Nancy, who has announced the failure of his mode. More than one failure must occur to refute the testimony of complete and repeated successes.

At the close of the reading of the paper, DR. R. H. FITZ, of Boston, said that he thought the evidence of Koch demonstrated the existence of bacilli in the tuberculous tissue of the lungs. He thinks the matter in the fluids is the result of putrefaction.

DR. BOWDITCH then stated that he would like to ask Dr. Ernst a few questions. Where did these bacilli come from, since they were found in many forms of disease? Was it proper to wear respirators? Were they in the air? If there is danger from inhalation, should this appliance be used, or should they use some disinfectant, such as carbolic acid?

DR. ERNST then replied that carbolic acid had very little effect upon the bacilli, and was hardly desirable to be used, as it would probably kill the patient, if applied in the quantity and strength necessary to affect the bacilli. The treatment of the tubercle bacillus is one that ought to be discussed and experimented upon, and the experiments be made purely from cultivations. Many of the methods of the former experiments must be radically changed.

G. L. WOODS, M.D., of Springfield, Mass., then read a paper on

THE USE AND ABUSE OF ERGOT.

He said when our countryman, Dr. Stearns, first called attention in 1807 to the scientific use of ergot as a uterine motor-stimulant, its physiological action was imperfectly understood, and even now eminent authorities can scarcely agree upon more than the one incontrovertible fact that ergot increases the force and frequency of the contractions of the uterus, with a tendency to make them tetanic in character. That it has a similar contractile effect upon all unstriped muscular fibre, which is so generally distributed in the hollow muscular organs, seems equally clear. Wernich attributes the ecbolic properties of ergot to irritation of the uterine nervous centres, caused by secondary arterial anæmia of the spinal cord, due to loss of tone in and dilatation of the veins. Kohler refers the contractions to increased irritability of the puerperal nerves in conjunction with spinal anæmia. A committee on therapeutics in the Chicago Society of Physicians and Surgeons recently reported that ergot excites activity of the cardiac inhibitory centres and also the vaso-motor nervous centres in the medulla, thereby slowing the

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heart's action, causing contraction of the arterioles, increase of blood-pressure, diminution of blood-supply, and predisposing to death of the extremities. Very large doses then would seem to have a paralyzing effect upon the heart.

A knowledge of the physiological action of drugs is generally essential to their judicious administration. The most prominent action and use of a drug should not engage our attention to the exclusion of other occasional but deplorable effects. Because our text-books have always taught that, with certain precautions, ergot is innocuous in tardy labor, we are not obliged to accept the statement as a fact, if it can be shown at present or in future, that its use has not been sufficiently restricted. That such has been, and even now is the case, is the firm conviction of the writer. The use of ergot in the first stage of labor is not to be mentioned in this presence.

In view of the instruction which the average graduate has received, and the fact that he enters upon the practice of obstetrics without having seen a case of labor, but with an indefinite idea that ergot is a harmless time- and labor-saving drug, its employment in the second stage of labor becomes a radically different matter. Abundant authority for this use, however, is attested. The indications usually given, which present such a remarkably stereotyped appearance in every succeeding work on obstetrics as to preclude in the mind of the student the possibility of any other views being entertained, may be tersely stated as follows: In lingering labor from uterine inertia, it is regarded as essential that the presentation be vertex, the cervix well dilated, the perineum and ostium vaginæ relaxed, and that there be no fœtal or pelvic deformity or other obstruction to the speedy delivery of the child.

The contra-indications, as given, naturally suggest themselves; but it is the main object of this paper to express the belief of the writer, who never gives ergot at this stage of labor, but uses the forceps instead, that our authorities have been too liberal in their indications; that the contra-indications and dangers have not been fully appreciated or enumerated with sufficient fulness and clearness; that the routine administration of ergot, into which some of us fall, has been productive of great harm, and to urge its greatly restricted use. As employed by intelligent physicians to-day, rupture of the uterus is doubtless a remote danger to the mother; but if we only had access to Clay's *Handbook of Obstetric Surgery*, and gave ergot when the os uteri became dilated to about the size of half a crown, as therein directed, the prospect of a lacerated cervix would be exceptionally good. The approximately uninterrupted pressure of the head upon an incompletely dilated os is well calculated to bring about this untoward result. Clay is evidently prejudiced in favor of ergot, for he allows its moderate use in primiparæ, and bids for distinction in connection with its introduction to British obstetric practice.

Rupture of the perineum is an accident, irrespective of the use of ergot, which is occasionally unavoidable. The wonderful power of the uterine contractions under the influence of ergot is best appreciated by those whose hands have been subjected to the pressure. In proportion as ergot is used, does the distention of the perineum become unmanageable, and the liability to its serious injury increase. Too little attention is paid to the fact that in lingering labor the maternal passages are hot, dry, and unprepared for the rapid and forcible expulsion of the child. More or fewer abrasions of the mucous lining cannot fail to occur, over which the lochia must flow, and through which septic matter may be absorbed into the circulation of the mother, and prejudice her chances of recovery, while lacerations of the cervix generally escape detection until long afterward, when their ultimate effects have impelled her to consult her physician.

The writer felt that he could not too strongly urge the importance of withholding ergot during the entire period of dilatation and subsequent expulsion of the child. Exceptions will be taken to his total prohibition by men of experience, who claim immunity from accident.

Granting that these claims are sometimes well founded, the facts yet remain that ergot is daily given before the cervix is fully dilated; that rigidity and laceration often follow the sudden and continuous impingement of the head upon it; that the drug is often and repeatedly given to save time, or through deference to the wishes of the patient, and before any disproportion of diameters can be accurately ascertained. The gauntlet of impaction, the forcible passage of a large head through a small pelvis, pelvic phlegmasiæ, sloughing, septic absorption, etc., must be inevitably run. In view of all this, and more which might be pointed out, did time serve, we are confronted by this question: Do the benefits arising from this use of ergot compensate for the risk incurred?

But little notice has yet been taken of idiosyncrasy. In one case the writer has seen the ordinary symptoms of collapse follow the use of a moderate dose of ergot before delivery of the placenta, accompanied by a tonic contraction at the neck of the uterus, which effectually prevented its accomplishment for several hours. Within a few years, several similar cases have been reported in the journals, but whether this is an important factor in the production of the deplorable results sometimes following the exhibition of ergot, remains to be demonstrated.

Considering the action of ergot upon the circulatory system, an enfeebled or diseased heart would appear to be a contra-indication, which is universally ignored.

Though abuse may grow out of the use of the forceps, as well as of ergot, their employment presents marked advantages over the latter. A case which is suitable for ergot admits of their application; the liability to lacerations is materially lessened; the progress of the child is under control, the risk of asphyxia is obviated, and its safety is assured. The danger to the child can no longer be underestimated. Whether a poisonous effect is produced, as has been claimed, cannot yet be definitely stated, but the tendency to tetanic contractions with prolonged pressure upon the placenta or funis seriously interferes with the oxidation and decarbonization of the fœtal blood, and imperils the life of the child. If Churchill[1] be followed, who allows ergot to be given when the breech presents, how can this danger fail to be materially increased when the placenta is firmly compressed between the unyielding head and the uterine wall?

Spiegelberg insists upon the necessity of carefully observing the fœtal heart after the use of ergot, in order that the forceps may be immediately resorted to in threatened asphyxia. That this is often done may well be doubted.

Benicke reports twenty-seven cases in which ergot was given during the second stage on account of uterine inertia. Spontaneous delivery occurred in but seven of these cases.

It should be axiomatic with every practitioner that economy of his own time never justifies the use of ergot, but beyond every private and selfish consideration he cannot escape the responsibility imposed by a knowledge of its unreliability, its manifold dangers, and the frequent necessity for instrumental interference.

It is after the uterus has been completely emptied of

[1] System of Midwifery.

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its contents and for a varying degree of time after delivery then that ergot, in the opinion of the writer, meets its proper and strongest indication. No physician should attend a case of labor without having ready to hand hot water and a solution of ergotine, with appropriate syringes prepared for instant use should hemorrhage occur after complete evacuation of the uterus.

Post-partum hemorrhage is thus robbed of half its terrors. One of the most frequent indications for the use of ergot is subinvolution of the uterus. It has long seemed to the writer that appropriate prophylactic treatment, provided it could be applied, would greatly reduce the number of these cases. This treatment, which is found to be impracticable without the hearty coöperation of the patient, should begin from the moment the third stage of labor is completed. At this time, when the uterus has thrown off the burden which it has carried for nine months, the organ weighs, according to Heschl, from twenty-two to twenty-four ounces, and its length, according to Bærner, who has measured it in sixty-four cases, averages four inches. At the end of the first week, at which time women often get up, the uterus weighs from nineteen to twenty-one ounces; at the end of the second week from ten to eleven ounces; at the end of the third week from five to seven ounces; and the nearest possible approach to the normal weight of about two ounces is not reached until the close of the second month. The new mucous lining of the organ does not form before the third week. We must dissent then from the views of an eminent writer if, as reported, he advocates the encouragement of the patient to rise and dress on the third or fourth day after delivery in ordinary cases. The writer ventures the opinion that this time for keeping the bed or lounge is much too short. Indeed, the time-honored period of nine days does not seem long enough. At this time, even although the bulk of the uterus is much reduced, we have seen that it yet remained enlarged, soft, congested, and too heavy for its relaxed supports. Walking, standing, lifting, pelvic inflammations, etc., contribute to retard the process of involution, in many cases entirely arresting it short of completion, when we have resulting the condition of subinvolution, the grand predisposing cause of that long train of symptoms so familiar to the physician. Have we not here a clear indication for prophylaxis? The patient should not only be kept longer in bed to facilitate involution, but we shall do well to remember that it is the soft, spongy, subinvoluted uterus for which Bartholow recommends ergot. Believing that the process of involution is materially aided and advanced by the cautious use of ergot, it is the practice of the writer to give it in moderate doses for some days after delivery.

Corroborative evidence of the value of this plan of treatment is not yet abundant, but Dr. Garrigues, of New York, may be briefly quoted upon the use of ergot as follows: "ergot ought never to be given during labor. I use this drug in every labor, but not until after the placenta has been expelled. I give it even for four or five days, because I think that by causing contraction of the muscular coat of the bloodvessels, it counteracts absorption of septic matter, and by increasing, uterine contractions insures good involution."

Dr. W. A. DUNN, of Boston, then followed in a paper on the same subject.

AFTERNOON SESSION.

DR. J. W. WARREN, of Boston, read a paper on

GLYKOGEN.

He said: Of all the bodily organs common to both sexes, no one perhaps has attracted the attention of the medical profession so constantly and so universally as the liver. One other organ, the uterus, has been a worthy rival. We are still far from knowing with any exactitude what the liver—or indeed almost any organ of the body—really does. But we have taken the first great step at least on the road to knowledge. Much that is done is published in journals or pamphlets not very accessible to the general practitioner. I have ventured, then, to ask your permission to-day to act as a modest filter in presenting as concisely as may be some of the results of work done by many authors in the past few years, and bearing upon one function of the liver—I mean its glykogenic function. We are accustomed, nowadays, to think of glykogen. There are members enough of this Society, still hale and hearty and in busy practice, who never heard of any such substance until they had been in active work for years, when the discovery was made that the liver contained a starch-like body which, under certain conditions, is changed into sugar, and this discovery is associated with the name of the great Frenchman, Claude Bernard. Bernard had found sugar in the liver, and had described its production as a new hepatic activity, so that when yet another new liver substance was found, capable of easy transformation into sugar, the name of sugar-former, or glykogen, was naturally suggested. Circumstances have combined to attract much attention to its study. Physiologists have long recognized that the glykogen problem has far more importance than the explanation of such a disease. The whole problem of nutrition is very far from a solution.

The chemical story of glykogen can be very briefly told. It is, when dry and pure, a white powder, perfectly amorphous, showing nowhere the least tendency to crystallize. It is soluble in water, at least it seems to go into a solution of a peculiar opalescent character. It rotates the plane of polarized light to the right, three or even four times as much as glucose. The opalescent solution can be cleared by the addition of an alkali or an organic acid, but it is probable that a modification of the glykogen is brought about by this treatment. It is precipitated by alcohol and by ether. The ordinary method for obtaining glykogen is simple, and for its best form we are indebted to Brücke. The tissue to be treated is to be minced as fine as possible and extracted in hot water, as long and as often as anything is taken up. The filtrate is then freed from such albuminous bodies as have passed in the hot solution, and the glykogen is precipitated by alcohol, washed, redissolved, and again precipitated, until the desired degree of purity has been attained.

It is usually considered easy to obtain perfectly pure glykogen, free from salts that is, and leaving no ash upon combustion. But there is apparently a discrepancy in the statements, for only a few weeks ago a careful worker in this department reported that he found perfectly pure glykogen, which he had very carefully prepared, to remain in solution despite the addition of a considerable amount of chloride of sodium, which caused a complete precipitation. Under the influence of various acids, and particularly of numerous ferments, glykogen becomes more or less changed, and these changes can, to some extent, be traced by the behavior of the body to iodine. Within a few years it has been shown that the action of the ferments on glykogen produces a sugar not unlike glucose, and yet different enough to be of importance.

The exact chemical composition of glykogen is not certainly known—it belongs to the carbohydrates, *i. e.*, it contains only carbon, oxygen, and hydrogen; these latter in the same proportions as water. Hoppe-Seyler gives it the formula, $C_6H_{10}O_5$.

If we were to name the sources from which we can obtain glykogen, it would be necessary to mention not only most all the tissues of the vertebrates, but we should have to include many other forms of animal

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life. Such a thing as vegetable glykogen has been found; a fact, too, that has never received the attention it probably deserved. It interests us especially to remember that the mammalian liver and muscular tissues contain very considerable amounts of glykogen, and this is true not only of the developed animal, but also of the newborn which have not yet received any nourishment save through the uterus or in the egg. The presence of glykogen in the muscle is no new discovery. The percentage of glykogen found in muscular tissue is small as compared with that of the liver; but if you will take the trouble to figure it out, you will find that the total amount in all the muscles is oftentimes not very much less than that found in the liver. That this is actually true was demonstrated some three years ago by Boehm. The coagulated muscle-tissue retains the glykogen, it being much more difficult to prepare it for extraction than the softer tissues of the liver. In view of this fact—and I see no reason to question the trustworthiness of Boehm's statements—it is clear that all previous observations on the quality of muscle-glykogen, and its behavior under various influences, are subject to very considerable doubt. The form in which glykogen is stored up in the muscles is unknown.

Concerning the conditions which favor the increasing of the glykogen in the liver or the muscles as well as the conditions favoring its disappearance. There is unfortunately much disagreement despite the very large number of experiments reported. On one point, however, there is a general unanimity that feeding increases, while hunger distinctly decreases the amount of glykogen; among the foods, those containing sugar or whose digestion produces much sugar, have seemed especially efficacious.

The influence of the carbohydrates admits of various explanations. The glykogen might be formed directly from them by some synthetic process which prepares it to be stored up until wanted, or the carbohydrates might take the place of the glykogen already in the liver, and being constantly stored up there, but only to be normally carried off again nearly as rapidly. In this case it will be seen that an increase of the glykogen could take place, running parallel with the inflow of the carbohydrates. Yet another simple explanation offers itself. A portion of the carbohydrates may be changed directly into glykogen, the remainder being worked up otherwise, and acting in some way as a stimulus to the formation of glykogen out of other substances.

Not a little of this difficulty has been occasioned by the very natural view that the liver-sugar came directly from the glykogen; sugar is found in the liver, and its increase after death has long been known, and a decrease of glykogen has been postulated on, even seemed to be shown to be associated with this change. It has also been clearly shown that the development of sugar in the liver, as a post-mortem change, is the development of grape-sugar, and is not associated with a diminution of the glykogen, or at least that the disappearance of the glykogen bears no relation to the development of sugar.

Of greater importance still is the demonstration, that the liver is capable of forming sugar out of albuminoid material. This alteration of albuminoid material seems to be a distinct function of the liver, a function then, which is carried on independently, it may be, of the glykogen present.

Of the value of glykogen to the muscle but little is known. We know, as already mentioned, that large quantities are found in muscular tissue after feeding, and that hunger caused a marked diminution of the quantity. Boehm, however, found that rigor mortis itself is not necessarily associated with a lessening of the glykogen if putrefactive changes are avoided. If we wish then to summarize briefly, we may say the presence of glykogen is closely associated with the first steps of nutrition.

One point should not be left out of sight, and that is this: That wherever the disappearance of any putrefactive change can be assumed, we shall find a marked diminution of glykogen, and it becomes a serious question how far the disappearance of glykogen, as reported in all earlier investigations, has been due to some putrefaction—in other words, has not been merely functional.

DR. O. F. WADSWORTH, of Boston, then read a paper on

PHLYCTENULAR DISEASE OF THE EYE.

He referred to the multiplicity of names which have been given to the affection, some of them misleading, as implying analogies which do not exist, the result being to make the general understanding of the disease more difficult than it need be. To a certain extent the same effect is produced by the habit of treating separately of conjunctival and corneal disease. The disease is essentially the same whether it involve conjunctiva or cornea. It is characterized by the eruption of vesicles or pustules on conjunctiva or cornea, or on both, and often attended by very troublesome blepharospasm. The frequency of the disease is very great, it is mainly confined to young children, and often leads to permanent impairment, or even to loss of sight. It is often obstinate, and tends to recur on slight provocation, yet the importance of the trouble is not generally appreciated by the laity. The various forms which the eruption may present was described, and the different degrees of danger, as cornea or conjunctiva is implicated, pointed out.

The so-called photophobia may be excessive, but is not by any means always in accord with the severity and danger of the disease. Some of the worst forms have the symptoms but little pronounced. The true scrofulous ophthalmia is in many cases not properly applicable, yet it suggests the direction in which the cause is to be sought, *i. e.*, a condition of health below the normal. Such exposure as excites catarrhal affections of the mucous membrane of the throat and nostrils is an exciting cause, as are indirectly the exanthemata. The prognosis can usually, at first, be only a provisional one on account of the inclination to relapses and recurrence. General treatment is of the highest importance; nourishing food, bathing, fresh air, light, and tonics. Blepharospasm, so-called photophobia, is excited by the irritation of the terminal branches of the trigeminus, not by hyperæsthesia of the retina. The indication is to relieve the hypersensitiveness of the cornea, and atropine offers the best means. Eczema of the lids and face is a frequent accompaniment, and demands appropriate treatment. Irritants are to be avoided. Success in treatment depends on attention to details.

Local treatment consists in the use of mild collyria, atropine, and the careful application of calomel, which latter should never be employed when iodine is given.

Astringents are in general to be rejected, yet when there is the complication of a catarrhal conjunctivitis they may be used with caution. For the sluggish infiltration of the cornea hot fomentations are of benefit, The many means recommended for promoting absorption of corneal opacities left by the disease are of little value.

DR. B. HARTWELL, of Ayer, also read a paper on

MINOR INJURIES OF THE SPINAL CORD,

which was based upon the notes of nine cases, in which both the injury and the force used to produce it were slight, five of the nine were passive or subacute hy-

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peræmia, and four a mild form of chronic myelitis. They were of from two to twenty years duration, and were not severe enough to prevent a certain amount of labor being performed.

These minor injuries are of special importance to us as practical physicians, from their comparative frequency, their liability to result in permanent changes in the substance of the cord, and because we can do much in the way of relief and cure by appropriate treatment.

After stating their importance in a medico-legal point of view, he approvingly quoted Hodges' view in regard to the positiveness of the symptoms in spinal concussion, and also the generally favorable prognosis in such cases. He gave the history of two cases of spinal concussion from railroad accidents, in which the symptoms were not developed until four and ten days after the injury, followed by very good recovery.

The author then passed to cases caused by jar of railroad carriage, and reported two cases of passive or subacute hyperæmia, one of the cervical, the other of the lumbar enlargement of the cord of six to twelve years standing, which were finally compelled to seek relief. He then gave the history of two cases of injury of the lumbar enlargement of the cord, by way of illustrating the larger number of those minor injuries of the cord, caused by concussion, blows, or other means, in which there is no external sign of injury, and the patient is able to attend in part to daily duties. These are transverse lesions of the cord, and are either subacute hyperæmia or a mild form of chronic myelitis, the line between them being an artificial one.

The diagnosis of these cases in the early stages is often difficult when only backache is present, with perhaps neuralgic-like pains extending into the legs, simulating sciatica.

The points in diagnosis are tender points along the course of the nerve in the latter, which do not occur in the former, the recumbent position aggravates pain in cases when there is increased circulation in the cord, the history of injury to the back, and finally trial of remedies: Strychnia increasing the pain and other symptoms of myelitis and hyperæmia, ergot and belladonna relieving them.

The prognosis is usually good; some of the cases getting entirely well, others remain greatly relieved, and occasionally one relapses into a hopeless case of chronic myelitis; in these latter, the change is usually sudden; as a rule, the cases are worse in hot weather, and are made temporarily worse by hard work or active exercise.

The recent cases of injury are treated by digitalis, aconite, bromide of potassium. Ergot usually aggravates, as is shown by Bartholow in a clinical lecture in THE MEDICAL NEWS of December 16, 1882: "Its administration in acute spinal inflammation is improper, because of the peculiarity of its action, it induces an anæmia of the arterial distribution"—an ischæmia properly speaking—but the blood thus driven from the arterial side accumulates on the venous side.

Hot douches and mild irritation of the spine do good in all cases. In the chronic form ergot and belladonna in full doses, dry cups along each side of the spine night and morning, galvanism, rest, not absolute, but with moderate exercise, are the remedies upon which we most rely. Belladonna gives most immediate relief from pain, and acts best in cases in which the bladder is involved.

PROF. T. M. CLARK, of the Institute of Technology, then made some interesting remarks on

PLUMBING APPLIANCES.

He said: You will hardly expect me to say anything here about the long list of diseases attributed to the inhalation of sewer gas. Independent, however, of this question, there is another branch of inquiry which seeks to know how far the appliances now in use accomplish this result. In the discussion of this subject, the experience of the architect ought to be of some small service, for no one except a plumber or an engineer is kept more constantly in the current of the new inventions, and no one has a better opportunity for trying those which he may see fit to adopt. Some defects they all have, but improvements are made every day, the value of which is best appreciated by recurring to the developments of the more important inventions.

We shall find that great changes have been lately made in the design of conduits. In the primitive form of drain, the straight pipe extending from the sink or other receptacle of wastes in the house to the vault or cesspool outside, the lining of decomposing slime soon becomes objectionable. With the introduction of porcelain fixtures, it became apparent that something was still wanting to the success of the system, and attention was turned to the trapping. It was discovered that in the descent of a considerable quantity of water down a main drain-pipe, a partial vacuum was left behind it, into which the air from outside would press with sufficient force to push out easily the little column of water in the traps. The water being thus removed from the traps, left them open flues for bringing air from the soil-pipes into the cistern. The remedy for all these troubles, caused by the exhaustion of air in pipes behind moving bodies of water, was to break the "siphon" by the admission of air.

The adoption of improvements was followed by some unexpected good effects. The uniting of traps is a somewhat expensive matter, since the length of the waste-pipes is nearly doubled, and many attempts have been made to avoid it by the use of anti-siphoning expedients. However the system of pipes and traps may be managed, it is essential that all joints should be tight.

We need to know as much as this about the general methods of managing waste-pipes before we can appreciate some of the better points in the modern auxiliary apparatus. We find that the improvements within the last few years have been quite as great as in the system of pipes and trapping. It is not long since the ordinary appliance under this name consisted of an iron hopper, painted or enamelled inside, furnished with an iron trap at the bottom. This closet, when properly kept, was not so bad as some that have succeeded it. The main objection to it was that the bowl did not contain any water, and was liable to streaks and stains, until the contents accumulates in it to such an extent as to prevent the pan from moving. The operation of the closet is not interfered with, but the putrescent mass, of course, gives off its appropriate odors, which escape into the room in clouds whenever the pan is opened, and leak in slowly at all other times. It was obvious enough that the abolition of the filthy contents would be the next improvement in water-closets, but this was not accomplished at once. The first step was to reduce its size. In this way a large volume of water could be kept in the bowl. To facilitate this, the whole space from the outlet of the bowl to the valve is, in the best closets of this kind, kept as smooth as possible. Another novel mode of accomplishing a similar result was introduced in the Jennings' closet. The Jennings' closet consisted in a hopper with the outlet bent literally so as to admit of closing it by a gate or plunger, which serves to retain the water at a height in the bowl limited by an overflow. The difficulty, however, of insuring the attention necessary to keep this closet in order resulted in endeavors to produce a simpler apparatus. The most

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successful devices for this purposes have all taken their origin from the ancient hopper, which, while preserving its simplicity of form and freedom from moving parts, has been improved by the addition of a full and well-directed flush of water into the best appliances.

The modern hoppers, instead of being enamelled or painted iron, are all of white glazed earthenware. In order to secure the flush which is essential and which distinguishes the modern from the ancient hopper, the water is introduced all around the rim instead of at one point. The contents of the bowl are driven straight through this trap. In the hopper hitherto made, however, the trap is set so low that the water-line in it does not rise higher than its lower outlet. The amount of defilement is so slight as to produce little or no real annoyance, but in a good house every suggestion of foulness is to be avoided. A demand has recently arisen for a form of closet which should combine the advantages of the flushing rim hopper with the further one of retaining in the bowl a sufficient quantity of water to receive the soil without allowing it to touch the glazed surface.

With respect to other appliances, the same tendency to the substitution of vitrified materials for metals is to be observed in kitchen and other sinks, which were formerly used in good houses, of wood, then of iron, are now very generally made of soapstone, and they will before long be replaced by glazed earthenware.

In the modern habitation there must be no holes for refuse, and the sinks of the present day stand on iron or wooden legs, entirely open to the room. Water-closets are now very commonly set in the same manner. It is certainly true that the smallest vestige of the stenches which were once considered indispensable to domestic life, are now pursued with relentless vigor by those who know how to deal with them. Ten years ago it was the custom to make a single pipe do for several fixtures, running, for instance, the waste-pipes of the bath-room into the trap of the water-closet. This left a certain length of waste-pipe free to collect slime on the inside surface and to transmit the gases engendered by the decomposition of the slime back into them. The return of corrupted air from the short lengths of the house-wastes is quite incompatible with the new ideas, and every fixture is now, in good work, trapped as close as possible to the outlet. In addition to this, good modern work provides for the circulation of outdoor air through the whole system of drain- and waste-pipes.

The next improvement in house-drainage will probably be the provision of ventilation pipes, by which air will be constantly drawn out of bath-rooms and closets through the strainers and overflowers of the various kinds of apertures ventilating the apartments in which they are placed.

It cannot be doubted that the householders of the future will demand a degree of purity in the atmosphere of their homes of which we know little as yet; and no one who has lived in rooms where the air is constantly changed, will willingly submit to breathe again the exhausted and tainted atmosphere which now pervades the majority of dwellings.

WEDNESDAY, JUNE 13TH, SECOND DAY.

THE SECRETARY'S REPORT.

THE SECRETARY, DR. F. W. GOSS, read the records of the last annual meeting, and announced the names of the Fellows who had been admitted to the Society during the year—about ninety in number. He then read the names of twenty-seven deceased Fellows, whose average age was 60⅓ years.

THE TREASURER'S REPORT.

THE TREASURER, DR. F. W. DRAPER, then presented his annual report, which showed an income of $8,595.79, an outgo of $7,056.37, and a balance in the treasury of $1,539.42. The invested funds amount to $32,420.17, and remain unchanged, and yield four per cent. The treasurer announced that, owing to the energetic action of the District Treasurers, the list of delinquents was smaller than ever before, notwithstanding the large accessions to the Society.

THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

On motion of DR. H. P. BOWDITCH, of Boston, it was voted that a committee of three be appointed to memorialize Congress in regard to the disposition and care of the Library of the Surgeon-General's Office, and urge upon our Representatives the importance of providing a fire-proof building for its preservation in connection with the Museum, and distinct from the general Congressional library; also to memorialize Congress to make a liberal appropriation for the completion of the *Index Catalogue*, and for the general purposes of the library.

The Chair appointed as the committee under the above resolution, Drs. H. P. Bowditch, H. P. Wolcott, and O. F. Wadsworth.

The request of the President of

THE COLLEGE OF PHYSICIANS AND SURGEONS,

that diplomas granted by the College be recognized by the Society, was, after some discussion, laid on the table.

DR. E. N. WHITTIER, of Boston, then read a paper on

RECENT CHANGES IN THE METHOD OF MEDICAL INSTRUCTIONS.

He briefly reviewed the old system of acquiring a knowledge of the science of medicine by studying with some physician. He said that the method was unsatisfactory, and the practice of medical apprenticeship was practically abolished and superseded by the co-operative system of instruction, students having advantages in class instruction by different lecturers and professors which they could not have while studying with one physician. The rapid growth of hospitals requires a larger number of under-graduate appointments, and the difficulty is not to get enough but to select from those fitted for the positions, showing the high standard of students in medical colleges. He then considered some points in the present system of instruction which he thought might be improved.

DR. J. S. GREENE, of Dorchester, then read a paper on

NEURASTHENIA: ITS CAUSES AND ITS HOME TREATMENT.

He said it was not work, but competition, anxiety, hurry, and excitement of business and society, not education, but cramming, that causes nervous exhaustion. He then spoke in detail of the influences resulting in nervous exhaustion, and considered the different methods of treatment, paying a high tribute to those who have endowed hospitals for the reception and treatment of persons suffering from "neurasthenia."

DR. J. W. SPOONER, of Hingham, then read a paper on

THE ARTIFICIAL FEEDING OF INFANTS.

The different forms of food he placed under three divisions:

1. Milk of some other animal.
2. Condensed milk.
3. Prepared foods.

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1. Milk of some other animal.—The ideal infant's food is the breast-milk of a healthy woman. In its absence, we must get a milk that resembles, as nearly as possible, human milk. That of the cow is generally used because it can be easily obtained, although the milk of the ass, the mare, and the goat, in chemical composition, resemble breast-milk more closely.

Different examiners have reached contrary results in the analysis of human milk. After an examination of different tables, the writer concludes that the often-quoted tables of Verneuil and Becquerel are incorrect in this respect that they make the amount of caseine too large, and that of sugar too low.

The results of Henri and Chevallier and those of Arthur V. Meigs are thought to be more correct.

These tables show that human differs from cow's milk in containing much less caseine and more sugar. The slightly acid reaction of cow's milk, first stated by Parker, and again by Meigs and Pepper, was confirmed by an examination of the freshly drawn milk of nine pasture-fed cows, the milk in all these cases being faintly acid.

To make cow's milk suitable for the new-born child, it must be rendered alkaline, diluted with double the amount of water, and sweetened, preferably with milk sugar, and a tablespoonful of cream added to each nursing. Where hard curds are formed in the infant's stomach, even after dilution, the writer has found a solution of Irish moss, used in place of simple water, to act well in breaking up these cheesy masses.

2. Condensed milk is often a useful diet for children under three months. After this age, children fed upon condensed milk, although they may seem fat and well, yet fail to develop strong muscle and bone. The food seems lacking in albuminoids.

3. Prepared foods.—The test by which such articles of diet must be judged is the comparative absence of crude starch. Children less than six weeks old change starch into sugar slowly and imperfectly. Mellin's food has been found by the writer to be better than any preparation of this kind that he has used.

In conclusion, the following list meets the approval of the writer:

1. Diluted milk, and under this head the preparation recommended by Dr. Arthur V. Meigs (THE MEDICAL NEWS, November 4, 1882) deserves careful attention.
2. Mellin's Food.
3. Milk diluted with a solution of Irish moss or gelatine.
4. Condensed milk.

DR. W. B. GOLDSMITH, of Danvers, then read a paper on *The Early Symptoms of General Paralysis of the Insane.*

The following named

DELEGATES FROM OTHER STATE SOCIETIES

were then introduced to the meeting: Drs. F. W. J. Prey and L. I. Young, of *Maine;* E. R. Campbell and Robert Dinsmore, of *Vermont;* G. T. Swartz and H. J. Miller, of *Rhode Island;* G. G. Hopkins, P. V. S. Pruyn, and E. N. Brush, of *New York;* and Alice Bennet, of *Pennsylvania.*

After an intermission of fifteen minutes,

THE ANNUAL DISCOURSE

was delivered by AMOS H. JOHNSON, M.D., of Salem. He referred to the wonderful progress made in the study of astronomy and electricity during the last few years, and then turned to the consideration of the progress in the science of medicine, saying it was chiefly the result of judgment and critical observation. He spoke of the danger of allowing patients to follow Nature as a guide, declaring that in many instances her advice proves fatal, and physicians must take the guidance of Nature's control over his patients. The indifference with which the presence of some contagious diseases is regarded is one of the moral influences which has to be met. The science of preventive medicine is of recent growth, but facts acquired are of great value. He expressed the hope that the time would come when the State Board of Health would be relieved from the fear of political influences and attain its greatest usefulness.

Nature cannot be relied upon to best interpret her suggestions. Careful study of the results obtained by the investigations of others is necessary. Observation is not interpretation—to see is not to learn.

At the conclusion of his address a vote of thanks to Dr. Johnson was passed.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Alfred Hosmer, M.D., of Watertown.
Vice-President.—Ira Russell, M.D., of Winchendon.
Treasurer.—Frank W. Draper, M.D., of Boston.
Corresponding Secretary.—C. W. Swann, M.D., of Boston.
Recording Secretary.—F. W. Goss, M.D., of Roxbury.
Librarian.—David H. Hayden, M.D., of Boston.
Orator for Anniversary in 1884.—John Crowell, of Haverhill.

THE ANNUAL DINNER of the Society was served at 1 P.M., in the skating-rink on Clarendon Street, Francis H. Brown, M.D., of Boston, presiding.

NEWS ITEMS.

CLEVELAND, OHIO.

(From our Travelling Correspondent.)

THE AMERICAN MEDICAL ASSOCIATION has adjourned for this year, and the majority of the members have already started for their homes. Upon the whole, it has been a very pleasant meeting, and the great majority of those present seem to have thoroughly enjoyed their week's vacation. It is true that the hotel accommodations were insufficient for so large a gathering, and that in consequence some of the members could not obtain comfortable accommodations; but their graphic accounts of their discomforts were for the most part given with great good-humor to small and laughing audiences, and everybody was disposed to make the best of the situation.

Cleveland is very justly counted as one of the five most beautiful cities of the United States, her characteristic features being indicated by her sobriquet of the "Forest City," and during this week the foliage has been very near perfection. A stroll or drive down Euclid Avenue or Prospect Street, at this time of year, is a special pleasure to those who can appreciate without envy the beautiful homes which line these favorite promenades, with their spacious lawns. About twenty of these homes were opened for receptions in honor of the Association on Wednesday and Thursday evenings, and these were thoroughly enjoyable and enjoyed.

You have received full accounts of the literary and scientific work of the Association, which was about up to the usual standard. The most important topics of conversation were the New York Code of Ethics, and the proposed New Journal of the Association, yet comparatively little was said about either. No one wished to discuss the Code—the feeling being almost unanimous that this is no time to propose changes.

Some stir was made by a paper read by Dr. A. L. Gihon, U. S. Navy, in the Section on State Medicine, in which he expressed, with more energy than discretion, a quasi-contemptuous feeling for the old Code,

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and an admiration for the new. When it became known that the author of this paper, who was one of the Nominating Committee, was to be nominated as one of the vice-presidents of the Association, there was a very general feeling of dissatisfaction, and the matter came up in the Committee in the form of a resolution to reconsider the nomination. The matter was finally settled by Dr. Gihon's signing a paper, declaring his unqualified adherence to the old Code, which paper was read in connection with his nomination, and probably prevented the presentation of protests and the reference of the matter to the Judicial Committee.

The Council seems to have had very little to do, almost the only matter adjudicated being the case of Dr. Goodwillie, of New York, who had written a letter to the Chairman of the Committee of Arrangements, declaring his rejection of the old and his adhesion to the new or New York Code, whereupon protests against his being allowed to register were presented by delegates from the New York Academy of Medicine.

It seems that Dr. Goodwillie was allowed to register, inasmuch as he had signed the application made by all delegates upon which was the following statement:

"In acknowledgment of having adopted the Constitution, By-laws, and Code of Ethics of this body, and of my willingness to abide by them, and use my endeavors to carry into effect the objects of this Association, I hereunto affix my name."

The Doctor, however, claimed that he had signed this under compulsion, and did not consider it as binding upon him, so far as it was in conflict with the New York Code. The decision of the Council was that his name should be cancelled from the registry-list, and his money be returned to him; and the essential point upon which his case turned appears to have been that he did not confine himself to criticising or expressing an unfavorable opinion of the Code of the Association, which every one has a right to do, but that he formally declared that he did not intend to abide by it.

The nomination of Dr. Flint appears to give very general satisfaction, although many of the Southern members claim that the Presidency should have been given to Dr. H. F. Campbell, of Georgia, and the claims of this gentleman were strongly urged in the Nominating Committee.

Everybody is glad that the next meeting is to be in Washington, which is recognized by all as the proper place to be made, what might be called, the home-centre of the Association, and the only doubts expressed are as to whether sufficient hotel accommodation will exist in the latter part of the long session of Congress.

As to the forthcoming journal, every one is willing to see the experiment tried, but few are sanguine as to its success under existing conditions. It will be tolerably plain sailing for the first few months so far as quantity of material is concerned, at least, but after that will come the rub. However, we all wish it success.

RESIGNATION OF PROFESSOR WALLACE.—PROF. ELLERSLIE WALLACE has resigned the Chair of Obstetrics and Diseases of Women and Children in the Jefferson Medical College on account of ill-health. His successor has not as yet been elected, but the following gentlemen have been nominated for the vacant chair, at a meeting of the Trustees held last Monday evening: Drs. A. H. Smith, Ellwood Wilson, and F. H. Getchell, of Philadelphia; J. C. Reeve, of Dayton, O.; Theophilus Parvin, of Indianapolis; and E. W. Jenks, of Chicago. The election, it is understood, will be held on June 25.

PROF. PORRO has resigned his chair in the University of Pavia, and has been nominated as Director of the School of Obstetrics in Milan.

THE MASSACHUSETTS MEDICAL SOCIETY AND WOMEN MEMBERS.—The Councillors last Tuesday, at the annual meeting, refused by a vote of 62 to 58 to admit women to membership in the Society.

NEW JERSEY STATE MEDICAL SOCIETY.—The One Hundred and Seventeenth Annual Meeting of the Medical Society of New Jersey was held at Atlantic City, on June 12th and 13th, and the following officers were elected for the ensuing year:

President.—Stephen Wickes, M.D., of Orange.

Vice-Presidents.—P. C. Barker, M.D., of Morristown; Joseph Parrish, M.D., of Burlington; Charles J. Kipp, M.D., of Newark.

Corresponding Secretary.—William Elmer, Jr., M.D., of Trenton.

Recording Secretary.—William Pierson, M.D., of Orange.

Treasurer.—W. W. L. Phillips, M.D., of Trenton.

Standing Committee.—Drs. T. J. Smith, of Bridgeton; Samuel S. Clark, of Belvidere; E. J. Marsh, of Paterson.

The next meeting will be held at Cape May, on the second Tuesday in June, 1884.

THE STATE MEDICAL SOCIETY OF DELAWARE.—At the annual meeting of this Society, held at Wilmington, on June 12, the following officers were elected for the ensuing year:

President.—Robert M. Hargadine, M.D., of Felton.

Vice-President.—Willard Springer, M.D., of Wilmington.

Secretary.—George W. Marshall, M.D., of Milford.

Treasurer.—J. W. Sharp, M.D., of Camden.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending June 2, 1883, indicate that scarlet fever, mumps, and erysipelas have increased, and that pneumonia, bronchitis, and diphtheria have decreased in area of prevalence.

Compared with the average for the month of May in the preceding six years, measles was much more prevalent, influenza was more prevalent, and intermittent fever and consumption were less prevalent during the month of May, 1883.

Including reports by regular observers and by others, diphtheria was reported present during the week ending June 2, and since, at fifteen places, scarlet fever and measles each at thirty-seven places. One case of smallpox was reported in Lyons Township, Ionia County, June 6.

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 4 TO JUNE 11, 1883.

MCKEE, J. C., *Major and Surgeon.*—Assigned to duty as Post Surgeon Presidio of San Francisco, Cal.—*Par. 2, S. O. 56, Department of California, May 25, 1883.*

DE LOFFRE, A. A., *Captain and Assistant Surgeon.*—To proceed to Madison Barracks, N. Y., and report to the Post Commander for duty.—*Par. 2, S. O. 98, Department of the East, June 5, 1883.*

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, JUNE 23, 1883. No. 25.

ORIGINAL ARTICLES.

PEMPHIGUS, AND THE DISEASES LIABLE TO BE MISTAKEN FOR IT.

BY GEORGE H. ROHÉ, M.D.,

PROFESSOR OF HYGIENE AND CLINICAL DERMATOLOGY, COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE; MEMBER OF THE AMERICAN DERMATOLOGICAL ASSOCIATION, ETC.

(*Read before the Medical and Surgical Society of Baltimore.*)

IN 1877 I was asked by a medical friend to see with him a patient in whose case he was unable to arrive at a satisfactory diagnosis. The patient was a white woman, about fifty years of age, born in Ireland, but a number of years resident in this country. She had been inoculated in Ireland with smallpox virus, and passed through a mild attack of the disease at that time, the scars of which remained as evidences of the truth of her statement. About a year before I saw her, my *confrère* had attended her in an attack of smallpox of considerable severity, being the second attack, including the one following the early inoculation, that the patient had passed through.

About ten days before I was asked to see the patient, she had been attacked by the prodromic symptoms of smallpox, followed after the usual interval by an eruption of papules, rapidly developing into pustules of large size. At the time I saw her, the entire body was covered with pustules, varying in size from a pea to a hen's egg, many of them being black from effused blood. Some of the blebs had been ruptured, discharging their contents, and leaving an uneven, ragged, necrotic-looking base, a portion of the dermal structure being evidently destroyed. There was considerable inflammation and swelling of the skin present. The patient was much prostrated, and gave all evidences of grave systemic involvement. After a thorough examination of all the circumstances, I gave it as my opinion that the patient suffered from smallpox, in spite of the fact that she had passed through two attacks of the same disease before—one (the first) according to her own testimony, supported by the evidence of the scars remaining, and the second under the care of a thoroughly competent physician, whose experience with smallpox had been gained in an epidemic of wide extent and severity a few years before. The patient died a few days after I saw her, of exhaustion.

On March 6, 1883, I was called by my friend, Dr. R. H. P. Ellis, to a case presenting somewhat similar difficulties of diagnosis. The case was that of a robust carpenter, twenty-six years of age, who consulted Dr. Ellis some days before, with a peculiar bullous eruption upon the hands and face. In view of the fact that the patient lived in a smallpox-infected part of the city, the latter disease was, of course, first thought of; but Dr. Ellis, being solicitous of doing no injustice to his patient, even at the sacrifice of some time and convenience to himself, examined him very carefully before venturing a positive diagnosis. The examination convinced him that the case before him was not smallpox, or else that it was a very unusual and anomalous form of that disease. He therefore kept the patient under observation, treating him expectantly. The doctor noted the frequent eruption of bullæ, appearing in crops, and varying in size from a bean to a large almond. The bullæ were tensely filled with a clear, yellowish fluid, the walls of the blebs springing up abruptly from the sound skin, which presented no traces of inflammation or swelling. In a few days, the fluid contained in the blebs was absorbed, and the roof dried into a thin, brownish scab, which soon fell off, leaving a reddened, but not exuding surface beneath. The blebs appeared in crops; as fast as a number had disappeared, new ones appeared, passing through the same stages of development. If the bullæ were punctured with a needle, the fluid escaped, and they collapsed and dried up, looking for a time, however, very much like a flattened variolous pustule.

When I saw the patient, this eruption extended over the entire body, discrete for the most part, but confluent in places. Especially about the genitals was a large patch, very much resembling a patch of confluent smallpox pustules. There was considerable fever present on the day I saw the patient, but very little other evidence of serious constitutional involvement. He was cheerful; strong enough to walk about; slept well, and had a good appetite.

In this case, the diagnosis appeared to me equally plain as in the other. Considering all the symptoms, and not merely the eruption on a limited portion of the body, which might, and doubtless would, mislead many practitioners who failed to seek further, I gave a diagnosis of pemphigus, and advised the treatment most appropriate, viz., large doses of arsenic.[1]

These two cases, especially interesting in view of the consequences involved in an incorrect diagnosis, have led me to direct your attention this evening, as briefly as practicable, to the principal points of difference between pemphigus and such eruptions as might readily be mistaken for it.

Pemphigus is a disease of the skin, characterized by the outbreak of blebs, varying in size from a small bean to a hen's egg, or larger, generally appearing in crops, and accompanied by more or less febrile disturbance.

This definition sufficiently characterizes pemphigus, and marks it as a disease standing by itself. It

[1] The patient has entirely recovered under the arsenical treatment, which is claimed by such an accurate observer as Hutchinson to be specific in pemphigus.

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is not merely an eruption of blebs, but successive crops of these blebs appear. The blebs of pemphigus rise abruptly from the sound skin; have no inflammatory areola, and are, in most cases, tensely filled with a clear, yellowish—sometimes purulent—fluid, or at times containing blood.

In a few days, the fluid is reabsorbed; the roof of the bleb, with some of its contents, dries into a thin scale, which, when removed, leaves a reddened, but otherwise apparently healthy base. If, by means of the prick of a needle, or otherwise, the contents of the bleb are discharged, the latter collapses, and dries up, as in the last instance. Unless irritated by mechanical means or stimulating applications, pemphigus blebs rarely contain pus, and no ulceration takes place at their base; hence uncomplicated pemphigus leaves no scars. The blebs consist of single cavities, not subdivided into compartments, as are the pustules and bullæ of smallpox in their earlier stages.

The disease probably most frequently mistaken for pemphigus is impetigo contagiosa. This appears in the form of pea to chestnut-sized blebs, rising abruptly from a non-inflammatory base, but usually flaccid, not tensely filled with fluid like those of pemphigus. The borders of the blebs of impetigo contagiosa are also usually more irregular—not so perfectly rounded or oval as those of pemphigus. They contain a clear fluid, which rapidly becomes changed into a thin, milky pus. The fluid is soon absorbed, or dries with the roof of the bleb into a thin brownish crust with turned-up border lightly adherent at the centre, as if "stuck on" as Tilbury Fox described it. Impetigo contagiosa usually first appears on the face, and, being auto-inoculable, may be transferred to other portions of the body. It is very contagious and usually affects all the children of the same family. In most cases it runs its course in two to four weeks, and hence, probably originate the accounts of epidemics of acute pemphigus, which we so often see in the journals. The resemblance is often very close between the two diseases, and only a careful investigation will disclose the true nature of the disease in many instances. If the characteristic marks of the two diseases are remembered, however, no mistake should occur.

In a number of cases of erysipelas, frost-bite, burns and scalds, the application of cantharides or mezereon, bullæ appear on the affected part. Here pemphigus can always be excluded by the presence of the uniformly reddened or inflamed base upon which the blebs appear.

In the later stages of acquired syphilis a bullous eruption sometimes appears, which is termed by some authors, "syphilitic pemphigus." The name is misleading, as the eruption of bullæ is the sole point of resemblance. The bullous syphiloderm, as this affection is more properly termed, is differentiated from pemphigus, by an inflammatory areola surrounding the base of the bleb, which becomes purulent, the contents drying into a greenish-brown scab seated upon an ulcerated base, constituting what is called rupia. The bullous syphiloderm is more frequent in children as a manifestation of inherited syphilis.

The early stage of true leprosy is frequently accompanied by an eruption of bullæ. In this disease, however, some hyperæsthesia, followed by anæsthesia of the spots occupied by the blebs generally precedes the eruption. Other concomitant symptoms of grave involvement of the constitution will also be present, and enable the physician to exclude pemphigus.

Smallpox, as the cases before related go to show, may cause a difficulty in diagnosis—a difficulty which is perhaps more serious than that presented by most other diseases, on account of the results which may ensue if a case of the latter should fail to be recognized. In smallpox, however, the blebs always contain pus or blood; are not simple cavities, but subdivided into compartments; are seated upon an inflamed base, and followed by ulceration and loss of substance. The prodromic symptoms of smallpox can also usually be verified in the latter disease; these do not occur in pemphigus.

In rare cases of exudative erythema, large blebs sometimes occur as one of the multiform manifestations of this disease. The accompanying papules and the generally present patches of diffused red or brownish discoloration will serve to distinguish the affection. Dr. I. E. Atkinson has described some interesting examples of the bullous form of erythema multiforme in THE MEDICAL NEWS for December 2, 1882. The so-called herpes iris, which has doubtless sometimes been mistaken for pemphigus, is now generally regarded as merely one of the forms of exudative erythema.

In some rare cases of urticaria, the summit of the wheal is occupied by a bleb, which may simulate the bullous eruption of pemphigus. The presence of other wheals, the urticarial irritability of the skin, and the intense itching in urticaria will serve to distinguish it from pemphigus.

Charcot has pointed out that a bullous eruption sometimes occurs in consequence of nerve-lesions. These eruptions may appear consecutively, simulating the recurrent eruptions in pemphigus. Scars remain in these cases, however, to mark the seat of the blebs, which is an exceedingly rare result in pemphigus. In the latter disease, also, the eruption would not be so strictly limited to the area supplied by an injured nerve.

Scabies is occasionally accompanied by large bullæ. The presence of papules, pustules, furrows, and excoriations, accompanied by severe itching, and the acarus, discoverable with a lens, would exclude pemphigus.

In ecthyma, large pustules are formed, which may be mistaken for the bullæ of pemphigus. The free pus production, the inflammatory areola around the base of the blebs, and the resulting greenish crusts and superficial ulceration in ecthyma render the diagnosis easy.

An important, possibly frequent, and certainly rarely recognized cause of bullous eruptions is the ingestion of certain medicines. Arsenic, potassium bromide and iodide, quinia, copaiba, and phosphoric acid, have been followed by bullous eruptions, more or less resembling pemphigus. It should in all cases of doubt be ascertained whether such medicines have been taken before deciding upon the diagnosis.

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It needs to be added that the practitioner must be constantly on his guard against being victimized by feigned bullous eruptions, *i. e.*, eruptions of blebs caused by the designed application of chemical or dynamical irritants to portions of the skin with intent to deceive. Hysterical women are, of course, the most frequent offenders in this respect, but it must not be forgotten that men sometimes maling by feigning various formidable skin eruptions. The methods by which bullæ are produced artificially consist in the hot iron, sinapisms, cantharides, strong acids or alkalies, and perhaps in some instances, prolonged pressure. The possibility of this occurring must be constantly borne in mind in order to avoid being discomfited by a malicious or dishonest patient.

While it may be necessary in some cases to defer giving a positive diagnosis for one or several days, close observation, and recollection of the points of distinction here laid down will nearly always enable the practitioner to differentiate between pemphigus and other bullous eruptions.

AN EXTREMELY COMPLICATED CASE OF CICATRICIAL CONTRACTION FROM BURNS.

BY ALFRED C. POST, M.D.,

CONSULTING SURGEON TO THE NEW YORK, ST. LUKE'S, AND WOMAN'S HOSPITALS; VISITING SURGEON TO THE PRESBYTERIAN HOSPITAL, NEW YORK.

(*Read before the New York Surgical Society, May 22, 1883.*)

MRS. I. L., widow, aged thirty-two years, admitted into Presbyterian Hospital, August 8, 1882.

On the 6th of June, 1881, she was severely burned on her face, hands, and forearms, by an explosion of gunpowder. Two months elapsed after the injury before the burned surfaces had healed. Hard cicatricial bands were left upon the lower part of the face, extending from the chin to the ears, more extensive on the left than on the right side. The lobe of the left ear was completely enveloped in cicatricial tissue, a portion of its surface being exposed at the bottom of a deep pocket. The hands were greatly disfigured, and were scarcely of any use to the patient.

Right hand: The ring and little fingers were flexed at the metacarpo-phalangeal articulations, and at the articulations between the first and second phalanges. The little finger was thrown in advance of the ring finger, and any attempt to straighten it was resisted by a firm cicatricial band, extending from the ulnar margin of the finger towards the pisiform bone. The point of the little finger was separated from the palm of the hand only to the extent of two centimetres. The ring finger was also fixed in a flexed position by a very firm cicatricial band on its ulnar margin, binding it to the ulnar margin of the hand, and resisting any effort to extend it beyond an angle of 120°. The index and middle fingers were nearly normal. The first phalanx of the thumb was bent forward at an obtuse angle upon the metacarpal bone, fixed by a cicatricial band passing from the radial margin to the wrist. The last phalanx was bent backward at an angle of 110°. The dorsal surface of the thumb was covered with cicatricial tissue, offering considerable resistance to efforts which were made to straighten the member at the articulation between the first and second phalanges. The integument of the forearm was covered around its whole circumference by moderately firm cicatricial tissue, extending on the ulnar side to the vicinity of the elbow. The dorsal surfaces of all the fingers were webbed together, the surfaces between the index and middle, and middle and ring fingers as low down as the anterior edge of the commissures, and the space between the ring and little finger, nearly as low as the articulation between the first and second phalanges.

Left hand: Index and middle fingers are bent backward at articulation between first and second phalanges, and firmly held in that position by strong bands of cicatricial tissue. The ring finger is flexed, almost at a right angle, at the articulation between the first and second phalanges, and fixed in that position by two nearly parallel bands of considerable thickness. The little finger is flexed at an angle of 75° at the articulation between the first and second phalanges, and is firmly fixed by a dense mass of cicatricial tissue, which occupies the whole space of the integument between the first and second phalanges, binding the whole of the middle phalanx to the palm of the hand. The first phalanx is bent far backward. The whole integument of the hand presents a cicatricial character. This condition extends upon the forearm, three or four centimetres above the wrist. The thumb presents a condition almost identical with that of the right hand. Masses of cicatricial tissue extend across the dorsal surfaces of the commissures of all the fingers, webbing them together more than half way to the articulations between the first and second phalanges.

First operation, August 10th; right hand: Multiple division was made of the cicatricial bands which fixed the ring and little fingers in a flexed position, and which contracted the palm of the hand. The fingers could then be extended, and the tension of the palm relieved. The wounds were washed with carbolic acid, 1 to 20, and dressed with lint saturated with carbolic oil, two scruples of carbolic acid to one drachm of olive oil. A dorsal felt splint, with digital prolongations, was applied, fortified with strings of hoop iron, one for each finger, the splints extending up nearly to the elbow. Each finger was fixed in an extended position to the corresponding portion of the splint with narrow strips of adhesive plaster. Wider strips of adhesive plaster secured the splints to the forearm, and a gauze bandage was applied over the whole.

Left hand: An operation was performed similar to that on the right hand, except that the distal extremity of the proximal phalanx of the little finger was excised with bone forceps, after having been exposed by a longitudinal incision dividing the skin, the aponeurosis of the extensor tendon, and the periosteum. The dressings were the same as on the other hand.

Aug. 15.—The dressings were removed for the first time since the day of the operation. The wounds were washed with carbolic acid, 1 to 40,

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and dressed as before, they were beginning to granulate and were free from inflammation.

18th.—Dressed as before; the wounds were in good condition.

25th.—The wounds have been dressed every other day, and passive motion applied to the fingers. The wounds are nearly healed.

Sept. 11.—The wounds are healed. The splints were left off from the right hand, and from the ring finger of the left hand to allow passive motion of the fingers.

12th.—Reapplied splints.

16th.—Left off splints again for twenty-four hours.

17th.—As the fingers showed a strong tendency to recontraction, the splints were again applied.

27th—The splints removed at 6 A.M., and reapplied at 11.30 A.M.

Oct. 4.—Second operation: This was performed to improve the position of the thumbs. Right thumb: A longitudinal incision was made over the dorsal surface of the distal articulation of the thumb, exposing the bone. The distal end of the proximal phalanx was then excised with cutting forceps. Five transverse incisions were made across the longitudinal ones, but not deeper than the cicatricial tissue. A similar operation was performed on the left thumb. The wounds were dressed in the same manner as after the first operation. The thumbs were brought into a slightly bent position, and secured in that position by dorsal splints of hoop iron.

10th.—Removed the dressings.

25th.—Since last date the dressings have been removed and passive motion employed every other day. The wounds are nearly healed.

Nov. 1.—The distal phalanges of the thumbs are nearly in their normal position, but with some tendency to backward flexion. The metacarpal bones of the thumbs are adducted by strong cicatricial bands on their palmar and dorsal surfaces. The index, middle, and ring fingers of the right hand are nearly normal in position and mobility, while the little finger is maintained in a state of partial flexion and slight adduction by a dense cicatricial band which extends along the palmar surface and ulnar edge nearly up to the wrist.

The ring and little fingers of the left hand are still somewhat flexed at the articulations between the first and the second phalanges, while there is some backward flexion of their metacarpo-phalangeal articulations.

Third operation: The cicatricial integuments on the dorsal surfaces of both thumbs were freely divided by a series of oblique incisions intersecting each other at right angles, so as to divide the aforesaid cicatricial integuments into a series of parallelograms, about seven millimetres in diameter. On the left hand, the cicatricial tissues were also divided on their palmar surface by a series of parallel incisions extending over the radial margin of the thumb. The cicatricial webs uniting the several fingers of the left hand on their dorsal aspect were divided by the longitudinal incision in each interdigital space, and by a number of parallel transverse incisions on the lateral surface of each finger.

On the right hand, similar longitudinal incisions were made through the webs on the dorsal surfaces of the fingers, and nearly parallel with the longitudinal incision on the dorsal surface of the web connecting the dorsal surfaces of the index and middle fingers, a V-shaped incision was made, so as to liberate a triangular flap whose apex pointed upward about three centimetres above the commissure, the base of said flap including the main longitudinal incision at the commissure. On the outer surface of the integument, covering the first phalanx of the little finger and its metacarpal bone, twelve transverse incisions were made through the contracted cicatricial tissue which drew the fingers in the direction of adduction and posterior flexion. The usual dressings were applied, but the application of splints was postponed until the next day.

22d.—The dressings were renewed, and splints applied to draw the several parts in a direction opposed to the deformity. After the first few days, the dressings and splints were removed every other day, and passive motion employed at each dressing.

Dec. 5.—Fourth operation: right hand. The principal remaining deformities to be overcome were undue approximation of the metacarpal bone of the thumb to that of the index finger, and abnormal flexion of the little finger. To overcome these deformities, free multiple incisions were made through the cicatricial bands occupying the commissure between the thumb and the index finger, and also through the dense band on the palmar surface and ulnar edge of the integument covering the little finger and its metacarpal bone. The thumb and index finger were then widely separated from each other, and secured by splints of hoop iron, one on the radial side of the thumb, and the other on the dorsal surface of the index finger. The little finger was brought into a state of exaggerated extension, and fixed in that position by a band of iron on the dorsal surface. All these splints extended above the middle of the forearm.

Left hand: the deformities to be overcome were, as far as concerned the commissure between the thumb and the index finger, the same as on the right side, and a similar operation was performed. The remaining deformity on this side was chiefly a flexed condition of the ring finger, involving the articulations between the first and second, and second and third phalanges. This flexion was maintained by a very firm cicatricial band, occupying the whole breadth of the palmar surface of the finger. I divided this band by a number of parallel oblique incisions, downward and outward, intersected by other parallel incisions downward and inward. The finger was then brought into a state of exaggerated extension, and secured by an iron band on its dorsal surface.

10th.—The wounds have been dressed every other day; they were in a very good condition.

25th.—The wounds are nearly healed; the parts are maintained in good position.

Jan. 11, 1883.—Fifth operation. This was performed to relieve the backward traction of the thumbs at their distal articulations. It was similar

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to the operation performed on the 4th October. It consisted in the exsection of the distal extremities of the second phalanges, which were exposed by means of free longitudinal incisions on their dorsal surfaces, in addition to the longitudinal incision required for the exsection of the extremities of the phalanges. Multiple transverse incisions were made through the cicatricial tissue on each side, the usual dressings were applied to the wound, and the terminal phalanges of the thumbs were fixed in a flexed position by the application of bandages around them and the hands.

Feb. 14.—Sixth operation. The little finger of the right hand, and the ring and little fingers of the left hand being flexed at angles of about 135°, multiple incisions were made across their plantar surfaces, the fingers were brought into a state of exaggerated extension, and fixed by means of splints to their dorsal surfaces.

March 26.—Seventh operation. The right little finger, and the left ring and little fingers remaining still abnormally flexed, the operation of Feb. 4th was repeated upon them, and they were again fixed by appropriate splints in a position of exaggerated extension. The left index and middle fingers being bent backward at the articulation between the first and second phalanges by broad cicatricial bands on their dorsal surfaces, multiple oblique incisions were made downwards and inwards, and downwards and outwards, dividing the bands into rhomboidal segments; these fingers were then bent forwards, and secured in a flexed position by splints applied along their palmar surfaces.

April 12.—Eighth operation. The lobe of the left ear being enveloped in a mass of cicatricial tissue, I made a curved incision around its lower extremity and liberated it from its abnormal attachments, and then by excising a small portion of the subcutaneous tissue, was able to reunite the integument over its margin, and to secure it by fine sutures. I also brought together and secured by sutures the edges of the wound upon the side of the neck from which the lobe had been liberated.

20th.—I removed the last of the sutures to-day. The margin of the lobe has healed, and the insulation of the lobe from the parts with which it had been incorporated is completely established.

26th.—Ninth operation. This was performed for the purpose of improving the position and increasing the mobility of the right little finger, which was still somewhat flexed, and considerably adducted, and whose replacement in its normal position was resisted by a very dense cicatricial band along the palmar surface and the ulnar margin of the little finger and of the hand. This band had been repeatedly divided, and the parts had been stretched, but in consequence of the difficulty of applying force advantageously to overcome the adduction, not as much relaxation of the contracted tissue had been obtained as seemed desirable. On the present occasion I made numerous oblique incisions, dividing the cicatricial tissue into small rhomboidal segments, and brought the finger into a state of nearly perfect extension: I also overcame the adduction. But after making as thorough a division of the cicatricial band as seemed to be advisable, it required some force in the way of traction to maintain the improved position of the finger. I washed the wounds with carbolic acid, one to twenty, and enveloped the finger in sheet lint moistened with carbolized oil. To maintain the improved position of the finger, I resorted to the following method: I first applied an iron splint along the radial side of the index finger and of the forearm, the digital extremity of the splint being bent at an obtuse angle, so as to bring the finger into a state of forced abduction. The middle finger was then secured to the index by a broad strip of adhesive plaster, and in like manner the ring finger was secured to the index and middle fingers. The little finger was then brought into an extended position, and secured by a dorsal splint, and the adduction was overcome by drawing it firmly out and binding it to the other fingers by a broad strip of adhesive plaster. A gauze bandage was then firmly applied around the hand and forearm. The fixation of the index, middle, and ring fingers in a position of abduction seemed to be indispensable as a means of overcoming the obstinate adduction of the little finger. It was an evil, but it appeared to me to be an unavoidable one.

May 22.—The treatment last described was continued with some modifications until the 17th instant, when the iron splints were discontinued and wooden splints were applied to the dorsal surfaces of the forearms and hands, secured by roller bandages. This change was made as a matter of convenience, the fingers having been brought nearly into their normal position, and but little active force being required to keep them in place.

The treatment of this obstinate case has been brought nearly to a close. The hands will require the support of bandages and splints for some time to come, and the persevering use of passive motion will be required to restore mobility to the fingers. The result of the treatment is not perfect, but considering the difficulties of the case it has been as satisfactory as might reasonably have been expected.

In reviewing this case it will be observed that the deformities of the thumbs and fingers produced by the cicatricial contractions were of a very complicated character, owing to the fact that the hands had been severely burned both on their palmar and dorsal surfaces, and that the proximal and distal phalanges of the same member had been drawn in the opposite direction of flexion and extension. In consequence of these complications it was a very difficult matter to apply force in such a manner as to overcome deformity in one direction without increasing it in another.

In the course of the treatment it became necessary in several instances to repeat the operation upon the same parts which had already been operated on, as the tissues which had been divided had reunited so as still to offer strong resistance to forces tending to overcome the deformity, and in each instance some benefit was derived from the repeated division of the cicatricial bands. If the deformity had been only in the direction of flexion, or only of extension, the problem would have been much

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simpler, and better results could have been obtained in a much shorter time.

Each operation was performed while the patient was under the anæsthetic influence of ether, and the repeated etherizations were well borne by the patient. No considerable amount of inflammation followed any of the operations. There was no sloughing at any time of even the most minute portion of the divided tissues, although, in a number of instances, cicatricial bands were divided into small segments. The divided parts began to assume a healing character within a very few days after each operation, and, in most instances, the healing process was complete within two or three days.

After each removal of the splints, before reapplying them, passive motion was freely employed: this often occasioned a considerable degree of pain, which, however, soon subsided after the reapplication of the splints.

Occasionally, when one or more of the fingers had been kept for many days forcibly stretched in a direction opposite to that of the original deformity, it seemed disposed to become rigidly fixed in the position in which it had been held. In such cases, the splints were left off for a day or two, with directions to make free use of passive motion; but very soon there was a tendency to a return of the old deformity, and it became necessary to reapply the splints, and, in some instances, to redivide the cicatricial bands. These changes in the details of the treatment seemed to be necessary to prevent rigidity, and to overcome deformity. The treatment of a complicated case of cicatricial contractions, like the one which has been described, must necessarily be extended over a long time. The contracted parts must be very freely divided at many points through the whole thickness of the cicatricial tissue, and the parts must then be stretched, as far as possible, in a direction opposite to that of the deformity, and maintained in that position during the healing of the wounds and for a long time afterwards. By perseverance in this course for a sufficiently long period, paying constant attention to the most minute details of the treatment, the case may be conducted to a successful issue; and if the patient be careful to practise active and passive movements of the affected parts to a sufficient degree, the tendency to a recurrence of the deformity and of the rigidity of the parts will be finally overcome.

MEDICAL PROGRESS.

CYSTOTOMY BY A MODIFIED LATERAL METHOD.—MR. REGINALD HARRISON has had cases in which, on account of an enlarged prostate, it was necessary to make an opening into the bladder from the perineum, the usual means of relieving obstructed micturition, or its consequences, having failed. He reports the details of such a case—a man, æt. 63, who had been suffering from frequent micturition, caused by an enlarging prostate. Finally, the irritability increased so much that it was sometimes difficult for him to hold his urine for more than ten minutes, and Mr. Harrison determined to open the bladder. The patient being placed under ether in the lithotomy position, a small grooved staff was introduced into the bladder, and a limited incision made down upon it laterally, opening the urethra in the membranous portion. The staff being necessarily a small one, he was enabled to pass his right index finger into the bladder without removing it. On doing so, he found that, though the prostate was not very large, the orifice of the bladder was obstructed by one of those nipple-like enlargements of the third lobe, which are sometimes more effectual in rendering micturition difficult and catheterism uncertain, than more general hypertrophies.

Finding that he could obtain his object and free the neck of the bladder without attempting to remove or enucleate any portion of the gland, he did not carry the incision into the bladder along the groove of the staff, but introduced on his forefinger (having now removed the staff), a straight, narrow, probe-pointed bistoury, by which he divided what seemed to be the obstructing portion of the prostate. The finger then entered the bladder easily, whereas previously it was with the sensation that a source of obstruction existed, which was quite capable of rendering catheterism difficult. On again using the knife for the purpose of slightly enlarging the superficial incision to avoid bagging, the rectum, which had been accustomed to prolapse very much, suddenly filled the wound, and came into contact with the knife; a small puncture of the bowel was the result. He is disposed to think, however, that it proved a not unimportant feature in the case.

A lithotomy-tube was introduced, to which rubber tubing was attached for draining and keeping the patient dry. The operation was followed by a rapid cessation of the hemorrhage and a decline of the cystitis. On the third day after, it was reported, "Patient in good condition; sleeps and eats well; pulse 80; temperature has never exceeded 100° Fahr." On March 15, the report states, "Wound looks healthy; appears to be closing up; passes his urine mainly through it; some by the urethra." At times, a little feces made its way into the wound, escaping through the perineum. The amount was so small as not to occasion any inconvenience, whilst it proved to be an obstacle to the speedy closure of the incision into the bladder. Within eight weeks from the time of operation, the patient was able to leave the infirmary.—*British Med. Journal*, June 9, 1883.

BISMUTH IN THE TREATMENT OF ULCERS.—DR. TRUCKENBROD has treated, at the Würtzburg Polyclinic, cases of varicose ulcers and others, of the legs, with subnitrate of bismuth sprinkled on the ulcer until a thin layer was formed, when a bandage was applied. In the cases of varicose veins, a rubber bandage was employed. The ulcers were healed, generally, in a few days. This treatment seemed to give better results than the use of iodoform.—*Centralbl. für klin. Med.*, March 24, 1883.

DISAPPEARANCE OF A TUMOR UNDER THE INFLUENCE OF ERYSIPELAS.—DR. T. STEIN (*Vratch*, No. 16, 1882) describes a striking instance of "*erysipèle salutaire*" (Champouillon). A sickly peasant woman, aged 48, complained of a pain and tumor in her right breast, which had appeared about a year previously. The mammary gland was found irregularly enlarged, fixed to the chest-wall, hard, knobbed, at some points fluctuating; the skin was adherent, showing dilated veins. The age of the patient, the moderate rate of the growth of the neoplasm, the hardness and immobility of the tumor, and the cachexia pointed to a malignant disease (cancer or sarcoma). The author persuaded his patient to undergo operative treatment; and meanwhile, keeping in view her anæmic state, he made an

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injection (half of a Pravaz's syringe) of pyrophosphate of iron with citrate of soda in the dorsal region. About twelve hours later, severe erysipelas of the neck and chest (and afterward of the head) appeared, starting from the spot of the injection. The attack kept the patient in bed twelve days. On examination on the thirteenth day the author, to his utter astonishment, found no tumor; nothing but two indurated knots, each of the size of a small walnut, remained. At the same time a great improvement of her general health followed. Dr. Stein was able to find out in literature only very few similar cases.—*London Medical Record*, May, 1883.

EFFECTS OF MEDICINAL SUBSTANCES ON MILK SECRETION.—DR. STRAUPF, after numerous investigations, comes to the following conclusions on this subject: First, as to the quantity of the milk—1. A considerable diminution takes place under the use of iodide of potassium. 2. No change is produced by alcohol, morphia, or lead. 3. A slight increase takes place from salicylic acid. 4. There is, perhaps, a diminution from pilocarpin. 5. A considerable diminution, and sometimes a total suppression, is produced by ergotin. Next, as to the quality of the milk—1. The iodide of potassium so disturbs the secretion of the mammary glands that it is impossible to recognize the modifications which the milk undergoes. 2. Alcohol, and in general all the drinks which contain it, increase the proportions of the fatty elements. 3. Pilocarpin, morphia, and lead produce no change. 4. Salicylic acid increases the proportion of sugar of milk. 5. No particular form of diet is capable of increasing the secretion of milk.—*Medical Times and Gazette*, May 26, 1883.

LOCAL ANÆSTHESIA.—M. VIDAL has observed that local anæsthesia by the ether spray is hastened by applying a thin layer of wadding to the skin, and directing the spray upon that. If the skin is punctured after refrigeration, the local congestion seems to prevent a second refrigeration.—*Gaz. Hebdom.*, May 25, 1883.

CANNABIS INDICA IN MENORRHAGIA.—MR. JOHN BROWN, in a communication to the *British Medical Journal*, May 26, 1883, says, with regard to the use of cannabis indica in menorrhagia, that his experience confirms, in some respects, Mr. Oliver's views, especially regarding its physiological action. In no case has it induced pleasurable feelings, generally most alarming symptoms, such as complete paralysis, horrible hallucinations, double consciousness, etc. A young practitioner should be most careful in prescribing, and warn patients of its action, or he may lose their confidence. Indian hemp has been vaunted as an anodyne and hypnotic, having the good qualities of opium without its evils. Also in dysmenorrhœa. In this complaint and insomnia it has not proved of much benefit. The drug has almost invariably produced some marked physiological effect even in small doses. Text-books give the dose as ten minims and upwards, but five minims is the largest dose that should be given at first. If bought from a good house, the drug is not inert or unreliable. A drug having such marked physiological action ought to have a specific use as a therapeutic agent. Indian hemp has such specific use in menorrhagia—there is no medicine which has given such good results; for this reason, it ought to take the first place as a remedy in menorrhagia, then bromide of potassium and other drugs. The *modus operandi* I cannot explain, unless it be that it diverts a larger proportion of blood to the brain, and lessens the muscular force of the heart. A few doses are sufficient; the following is the prescription: ℞. Tincturæ cannabis indicæ, ♏ xxx; pulveris tragac. co. ʒj; spiritus chlorof. ʒj; aquam ad ʒij. One ounce every three hours. Four years ago I was called to see Mrs. W., aged 40, multipara. She had suffered from menorrhagia for several months. Her medical attendant had tried the ordinary remedies without success. Indian hemp was given as above. Its action was speedy and certain. Only one bottle was taken. She was afterward treated for anæmia, due to loss of blood. Twelve months after this my patient sent for a bottle of the "green medicine." I learnt afterwards that she had sent this medicine to a lady friend, who had been unsuccessfully treated by another medical man for several months for the same complaint. It proved equally successful. The failures are so few, that I venture to call it a specific in menorrhagia. The drug deserves a trial. It may occasionally fail; this, however, is not to be wondered at in a complaint due to so many different causes, and associated with anæmia and other cases of plethora.

DR. ROBERT BATHO, in a note to the same journal, confirms the statements of Mr. Brown regarding its value in menorrhagia.

BULBAR LESIONS IN ATAXIA.—MM. LANDOUZY and DEJOSINE have recently made some very interesting studies as to the bulbar lesions in ataxias presenting laryngeal crises. They have found posterior sclerosis extending to the beak of the calamus scriptorius; the bulbar roots of the spinal and pneumogastric nerves presenting gross lesions precisely similar to those of the posterior roots of the cords. In the medulla, the decussating fibres and the origins of the pneumogastric and spinal nerves were profoundly altered on both sides. These lesions are sufficient to explain the laryngeal crises, but the intermittence of the crises is still unexplained.—*Gaz. Hebdom.*, May 25, 1883.

ASPIDIUM MARGINALE, A NEW TÆNIFUGE.—DR. CRESSLER has obtained excellent results from the use of the oleo-resin of *Aspidium marginale* as a tænifuge. The oleo-resin is put in capsules of about grs. x each, and administered after a total abstinence of twelve hours from food. A dose of castor oil is administered about one or two hours afterward. The *Aspidium marginale* is related to the male fern.—*União Medica*, April, 1883.

PROLONGED BATHS IN VIOLENT MANIA.—J. MILLET, in concluding an article on this subject, says that prolonged baths of a temperature of 77°–93° Fahr., are a most useful and efficacious means for combating the violent paroxysms of mania in the insane; their constant effect is to moderate the violence, lower the temperature, and diminish the frequency of the pulse. These results are more manifest and persistent as the baths are given at the lower temperature and for a more protracted period. The more violent the paroxysms, the colder and more prolonged should the bath be. Feebleness of constitution, emaciation, malnutrition, and the existence of fever are indications for a higher temperature and less duration of the bath. Baths of two to five hours, and at a temperature of 77° to 82° Fahr., should be administered to violent patients. If the bath is more prolonged, the temperature should be from 82° to 88°, especially if the agitation is not excessive. Baths of 88° to 93° should be reserved for cases in which there is moderate excitement in an emaciated, puny subject, or one enfeebled by fever or malnutrition. During the baths the head should be covered by cold compresses, frequently renewed, in order to prevent cerebral congestion, or else keep a current of cold water playing on the head. Baths of 96° Fahr., may

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be said to be neutral; while they modify the temperature and the pulse, they ordinarily increase the agitation of the patients.' Baths of and above 98° Fahr. elevate the temperature, accelerate the pulse and respiration, and when prolonged debilitate the organism and are followed by fatigue. They are rarely indicated.—*L'Encéphale*, No. 3, 1883.

THE UTERUS IN PUERPERAL ECLAMPSIA.—DR. BRAXTON HICKS read a paper on this subject before the Obstetrical Society of London, on May 2, and described two cases in which he had made careful observations. In each of them, coincidently with a convulsion, a powerful and prolonged contraction of the uterus was observed. Between the convulsions, the uterine action was natural. He could not state the exact relationship in point of time between the convulsions and uterine contraction. He did not think that uterine contraction alone caused the convulsion; for in the most severe cases of tonic or clonic contraction of the uterus, convulsions did not occur. But there might in these cases be increased excitability. It had been suggested that increased force of pains might result from carbonic acid intoxication due to the convulsions. He thought the immediate supervention of uterine contraction in the convulsive paroxysms and the quietness of uterine action between them told against this view. The presence of these contractions, together with the disturbance of the heart and vascular system, and the pupil, showed that the muscles of organic life were liberally affected during the paroxysms of eclampsia. These prolonged and powerful uterine contractions, as well as the carbonic acid poisoning of the mother's blood, were a source of danger to the fœtus, and in its interest speedy delivery was called for, if it could be effected without harm to the mother.

DR. ROBERT BARNES thought that with chloroform and improved operative measures delivery might be effected early and safely; but the mother must be considered first.

DR. GRAILY HEWITT thought the disturbances of the abdominal and renal circulation, caused by pressure of the gravid uterus on the renal veins, exercised a powerful influence in producing eclampsia. He had found benefit from diminishing this pressure by positional treatment, and by unloading the bowels.

DR. ROUTH had seen marvellous benefit in puerperal convulsions from placing the patient on her belly and knees, a confirmation of Dr. Hewitt's views.

DR. HICKS did not recommend force in the delivery of the child. As to the effect of pressure, there was often no albumen in the urine before the first convulsive seizure.—*Lancet*, May 26, 1883.

THE MOTOR CENTRE OF THE LOWER LIMBS.—Ferrier gives the motor centre of the lower limbs as the upper part of the ascending parietal convolution and the adjacent portion of the ascending frontal. MM. HALLOPEAU and GIRAUDEAU, after an extended study of the literature of the subject, together with the details of an interesting case, conclude that Ferrier is correct. Of fourteen cases, the upper part of the superior parietal convolution was involved, either alone or with the adjacent convolution, in *eight* cases; the paracentral lobule was involved *seven* times; the upper part of the ascending frontal was involved *six* times, and the superior parietal lobule *twice*. From these facts they conclude: 1. That there exists in man a distinct territory of the cerebral cortex, which presides over the movements of the lower limbs. 2. That the centre of this territory is the upper third of the ascending parietal lobule and the paracentral lobule, encroaching in front upon the upper part of the ascending frontal, behind on the superior parietal lobule.—*L'Encéphale*, 3, 1883.

STIGMATA OF MAIZE AS A DIURETIC.—DR. VIDAL SOLARES asserts that the stigmata of maize is an efficient diuretic, producing no unpleasant nervous or digestive disturbances, is well tolerated by the stomach, and may be used for a long time without producing any unpleasant effects. It regulates the pulse, augments the arterial tension and diminishes tension in the venous system.—*União Medica*, April, 1883.

RADICAL CURE OF HERNIA BY DISSECTION.—At the last meeting of the surgical section of the Academy of Medicine, MR. WILLIAM STOKES exhibited a patient whom he had operated on by this method for a strangulated inguinal hernia of the left side. The other side had been operated on in Liverpool some time since by the ordinary method, and had failed. Mr. Stokes dissected down to the pillars of the ring and stitched them and the perineum together with a piece of catgut. The operation was performed five months ago, and has turned out most successful. Mr. H. Gray Croly exhibited also on the same occasion a patient with inguinal hernia, in which the same method was used with a similar result.—*Lancet*, May 26, 1883.

ASTHMA AND NASAL POLYPI.—DR. JOAL, in a pamphlet on this subject, based on ten observations, shows that nasal polypi may be accompanied by suffocative feelings, and may often cause attacks of asthma, as these oppressive symptoms disappear when the tumors are removed. The author draws the following conclusions: 1. Mucous polypi of the nose sometimes occasion dyspnœic troubles of asthmatic nature, but they may be totally without influence on the production and progress of these troubles, or may be a simple coincidence. 2. This symptomatic asthma is observed principally in arthritic subjects, and in aged persons. 3. It is more often produced by reflex action following irritation of the nasal mucous membrane, produced by polypi. 4. The point of departure of the excitation may be the sensitive filaments of the pneumogastric supplying the pharyngeal or bronchial mucous membrane, which are influenced in the modified respiratory act by obstruction of the nasal passages. 5. Asthma may be due to catarrhal and emphysematous lesions attributable to nasal polypi. 6. The asthmatic accidents improve or disappear after ablation of the polypi. 7. The nervous troubles produced by polypoid tumors of the nose, may be confined to periods of spasmodic sneezing.—*Revue Méd. Franc. et Étrang.*, May 26, 1883.

HYDATID CYST OF THE BICEPS.—Hydatid cysts of the biceps are very rare, three cases having been reported by Blandin, Saele, and Dupuytren. MR. PICQUÉ now publishes a fourth. In September, 1882, a woman came under the care of M. Gosselin, with a large tumor situated on the anterior part of the left arm. The tumor first appeared two years ago, was for a long time very small, and gave rise to no pain. In July, 1882, it very suddenly became much larger, and soon attained the size of a child's head. It was elastic, fluctuating, movable over the deeper structures, was very regular, and occasioned no alteration of the skin; the humerus was sound, the beats of the radial artery were normal, and sensibility was only slightly influenced. There was nothing about the tumor indicative of aneurism. The axillary glands were not at all enlarged, and a malignant growth was thrown out of the diagnosis. The cyst was punctured and found to be a suppurating hydatid cyst; it was opened, the contents turned out, and the wound dressed. Recovery took place without accident, and without impairment of the functions of the arm.—*Gaz. Méd. de Paris*, No. 12, 1883.

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SATURDAY, JUNE 23, 1883.

THE JOHNS HOPKINS UNIVERSITY.

IN the course of some remarks made by President Gilman of the Johns Hopkins University, on the occasion of conferring degrees upon its graduates at the close of the academic year, June 7th, he referred to the fact that the Johns Hopkins Hospital is approaching completion, and that the organization of the medical department of the University must soon be taken in hand. As a preliminary step to this end, and in order to secure uniformity of plan and harmonious relations between the University and the Hospital, the trustees have designated as Professors in the Medical Department, Drs. Remsen, Martin, and Billings, for the Chairs of Chemstry, Physiology, and Hygiene, respectively.

Drs. Remsen and Martin are already professors in the University, the former of chemistry, and the latter of biology, and each of these has recently been provided with a large and well-appointed building, containing laboratories, lecture-rooms, etc.

It is not probable, as we learn, that Dr. Billings can accept the full title and responsibilities of a professorship, since he is unwilling to give up his library work, at present, at all events, but he may deliver a short course of lectures upon some subject or subjects connected with sanitary science, and will coöperate and advise in regard to the organization of the medical school.

It is understood that other professors will soon be appointed, and in particular, that the Chair of Pathology will soon be established.

Of course, nothing has yet been determined as to the character of the medical instruction which is to be given, the preliminary education to be required, or the conditions upon which the University is to grant the degree of Doctor of Medicine, but we can form some idea of what the conclusions ought to be upon these various points if the medical department is to be established and maintained upon the same general grade as that adopted for other departments of the University. An examination of the new schedule of studies recently issued for the collegiate department of the University, shows that if a young man wishes to obtain the degree of Bachelor of Arts in the course of study which is arranged with special reference to the needs of those who intend to study medicine, he must possess the following qualifications:

The requirements for his matriculation are a knowledge of Latin (Cæsar, Ovid, Virgil, and Cicero); Greek (Xenophon, Herodotus, Homer); mathematics (arithmetic, algebra, geometry, plane and solid, plane trigonometry and analytic geometry); the outlines of the history of England and the United States; English grammar, analysis, and composition; and either the elements of physics, of chemistry, of botany, of physiology, or of physical geography, as he may elect. French and German may be offered instead of Greek.

Students who wish to enter upon the biological courses preliminary to medicine without reference to the degree of B.A., will be examined at entrance in the following subjects:

Mathematics: Arithmetic, algebra (simple equations involving not more than two unknown quantities), three books of Euclid, plane trigonometry, and the use of logarithms. Latin: First four books of Cæsar, and sixth book of the Æneid. English: Lounsbury's History of the English Language, written composition, physical geography.

The young man who has matriculated with the view of taking the degree of B.A., and then of studying medicine, is to pursue the following studies, or at all events, to pass satisfactory examinations in them, viz.: English composition and literature, German and French, logic, ethics and psychology, physical geography and ancient history, drawing, vocal culture, physical culture, theory of accounts, and daily work for two years each in chemistry and biology. Usually this course of study will occupy from three to four years.

It is evident that the course of medical study which will correspond to such a preparation for entering upon it, must be higher than that of any medical school in this country. Another indication of what is to be done is given by the plan of the hospital, which is arranged to lodge the graduating class, on the supposition that the last year of the medical studies will be devoted almost entirely to clinical work. Whether it is intended that those

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students who do not matriculate for the B.A. degree, but pass the lower examination, shall be placed on an equality with the regular matriculants, so far as the degree of M.D. is concerned, is not known, and probably not yet decided, but it seems to us that they should not.

What the educated medical profession of this country hope and expect from the Johns Hopkins University is that it will make good use of the unrivalled opportunity which it has to give facilities for higher medical education such as do not exist at present in this country, and that it will not be turned from this by a desire to have a large number of medical students and graduates.

We have some very good medical schools in the United States, but we need one where the best men who can be found, with the best appliances obtainable, will devote themselves, not to the rivalling other schools in the manufacture of medical practitioners, but to supplementing the work of the best of the other schools; to training men for original research, or as teachers, and to promoting the scientific as well as the practical side of medicine.

The success of such a school must be reckoned by the quality and not the quantity of its graduates, and it seems to us that the degree of Doctor of Medicine of the Johns Hopkins University should be made equal at least to any similar degree of any institution in the world, even if not more than one man a year can be found qualified to receive it.

LOCOMOTOR ATAXIA AND SYPHILIS.

IN a discussion before the Therapeutical Society of Paris, recently, the relation between syphilis and tabes was warmly disputed. The weight of numbers was opposed to that view which regards the sclerosis of the cord as dependent on syphilitic infection. M. Edouard Labbé, has observed many cases of locomotor ataxia, in subjects having a syphilitic history. M. Gueneau de Mussy denies that there is any necessary connection between the two maladies. Dujardin-Beaumetz strongly opposes the theory of a causative relation, and maintains that Fournier's position on this point is untenable. Martineau avows his belief that syphilis is increasing year by year, and hence an infection may be suspected in doubtful cases. French opinion on this subject is divided, therefore; in Germany, the weight of authority is for the connection between syphilis and tabes, and in England there is an increasing volume of opinion in favor of the same view. Not sufficient stress is laid by any of the observers above referred to, on the two conditions, which may be held responsible for the production of sclerosis.

There are cases, in which all the objective phenomena of locomotor ataxia are due to gummata, so situated as to involve the coördinating and sensory tracts. Such examples differ from the true disease in that the symptomatic development is not orderly and synchronous, and in the important feature, that rightly directed specific treatment effects a speedy cure. Such cases are, properly speaking, examples of syphiloma of the spinal cord, and not of true locomotor ataxia.

There is another group of cases, greatly more numerous, in which a peculiar state of the system induced by the long continued existence of syphilitic lesions, and by the action of the specific remedies, gradually brings about sclerosis of various organs. In such examples, the syphilitic infection performs a secondary part, and the specific treatment does not modify the changes in the cord. If syphilitic infection is so wide-spread and increasing as Martineau suggests, is not this the true explanation of Rosenthal's gloomy announcement that locomotor ataxia is becoming a remarkably common malady? Admitting this view, it is necessary to bear in mind the true causative relation in most cases, and not seek by a lavish use of the iodides and mercurials to remove lesions, to the production of which these agents originally contributed.

UTILITY OF TREES IN CITIES.

THE discussion on the utility of trees in streets and open spaces, which took place in the International Hygienic Congress, held at Geneva in August last, has given rise to a controversy which has been carried on in the columns of the Geneva press. Dr. Piachaud, who supported the conclusions of the Congress, endeavors to prove that trees in streets do more harm than good, by impeding the circulation of air and obstructing light. He maintains that they are unnecessary for shade, as there is always a shady side to the street, and he favors the radical measure of the removal of existing trees. Prof. Goret, of the University of Geneva, has taken the opposite ground, and his reply is notable for its plain, practical, common-sense exposition of the subject. It is true that, in the narrow, dark streets of many continental cities, it may not be judicious to plant trees; nor is it likely that the practice would be adopted where the local circumstances are unfavorable. A wise discrimination is required in this as in all other city regulations; but there can be no valid reason for an unqualified condemnation of the practice.

There are few American cities that do not, by practice, endorse the views of Prof. Goret. Our broad streets and low buildings make the use of trees highly advantageous. They are not only ornamental and pleasing in their effect, and a source of comfort by the protection they afford against the glare of the sun, but they serve to

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temper the heat, protect against dust, cool the air and keep it moist. If not improperly located, they do not intercept light, the constant movement of the leaves allowing the rays of light to play freely through the foliage. The green tints rest and protect the eyes.

The evaporation from the foliage, which is most active in dry weather, has a very sensible effect upon the movement, temperature, and humidity of the atmosphere. It has been proved by actual observation that the evaporation from trees during the summer months, is equal to eight or ten times the amount of precipitation upon the areas shaded by them. Such being the case, the absorption of water by their roots, and its subsequent evaporation, must very materially affect the water in the soil, and moisten the air and lower the temperature.

Trees help to purify the air and soil, and this influence is nowhere more needed than in cities. The foliage absorbs carbonic acid from the atmosphere, and gives out oxygen; and the roots, as just stated, imbibe moisture, and absorb organic matter, which is one of the common sources of pollution of the subsoil of cities. The roots also assist mechanically in draining the soil, by perforating the deeper and less permeable strata, and thus furnish an outlet to moisture which would otherwise accumulate and produce dampness in the adjoining foundations.

In planting trees good judgment must be exercised. In narrow, dark streets they are unnecessary. They should never be planted too closely together, nor so as to come in contact with buildings. The tall varieties with spreading foliage should be selected. Those varieties which are the prey of insects and worms should be avoided. The practice of "topping" trees, which is so commonly indulged in by the "tree-butchers" which infest our cities, is ruthless and most injudicious. Trees thus treated are always injured and are unsightly, the branches become compacted together, the foliage so dense as to intercept the light, and the shade they afford so limited as practically to be of no value whatever.

As bearing on the above subject, it is interesting to note the revived activity of the Brooklyn Society, established for the purpose of promoting the planting and protection of trees. This Society has recently issued a circular containing suggestions to those who may feel disposed to aid in the effort to render the city more attractive, and, at the same time, to add to the comfort and pleasure of the people.

Still more recently there has been issued, by the Bureau of Education at Washington, a tract on the "Planting of Trees in School-grounds," which treats of the selection, planting, and care of shade and ornamental trees. The object is to introduce a means of culture, and to foster a spirit in the community tending to the encouragement of tree-planting and the protection of trees. "Many considerations of an obviously persuasive character," says the Commissioner, "may readily be adduced to encourage the practice of tree-planting, whether the subject be looked at from an economical, sanitary, or æsthetic standpoint." And this remark is equally pertinent to the necessarily limited and modified application of the practice in cities.

DIAGNOSIS OF UROGENITAL TUBERCULOSIS BY INOCULATION INTO THE ANTERIOR CHAMBER OF THE EYE.

SOME time before Koch's discovery of the bacillus tuberculosis, DAMSCH sought to make use of the inoculable properties of tubercular material in the diagnosis of doubtful cases of disease of the genito-urinary apparatus. Pursuing this line of investigation he made thirteen injections into the anterior chamber of the eye of the rabbit, using for this purpose, with every precaution preserved, the purulent sediment of seven clinically well-characterized cases of urogenital tuberculosis, in part of which the diagnosis was confirmed by autopsies. *In every case* there was developed in the course of three or four weeks tuberculosis of the iris. Control-experiments were made with purulent urine from non-tubercular cases of bladder disease in three instances, and in *none* was tuberculosis of the iris produced.

Subsequently, as already noted in these columns, Rosenstein discovered the bacillus tuberculosis in the sediment of urine from a case of urogenital tuberculosis. Whether or not it is the bacillus which is the infecting agent in these cases, the fact, if such it be, is of the extremest practical importance. For it is well known that we possess no other means of determining certainly the presence of urogenital tuberculosis, and this mode is exceedingly easy of application.

Recently (*Deut. med. Wochenschr.*, April 25th), Damsch has again made use of this inoculation method in the diagnosis of doubtful cases of urogenital disease in four cases, with the result of apparently confirming his original conclusions. In each the inoculations were made at the time when the symptoms of the disease were confined to suppurative cystitis. In two cases, iris-tuberculosis was developed in three weeks, and both patients whence the pus was derived developed general tuberculosis, evinced in one case by distinct renal tumor and pulmonary phthisis, and in the other by laryngeal and pulmonary phthisis. In the two remaining cases, the inoculation, though frequently repeated, was without result, the pus disappearing from the anterior chamber in a few days. One of the patients whence the pus was derived recovered from the intense hemorrhagic cystitis with which he was af-

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flicted, in a few weeks, but the second disappeared from observation before recovery.

Damsch also inserted, without effect, into the anterior chamber, large numbers of non-tubercular substances, including uric acid and sodium phosphate suspended in water, gonorrhœal pus in .6 per cent. solution of chloride of sodium, furunculous pus, non-tubercular peritoneal exudate, lepra products, etc. Similarly abortive were attempts to inoculate the cornea and conjunctiva by numerous injections into them of uric acid in suspension, xanthin, guanin, kreatin, kreatinin, and hippuric acid, alone and in combination with pus.

These results are exceedingly important, and in view of the ease with which they can be practised should be early repeated, and the true value of such diagnosis-inoculations ascertained.

NAPHTHALINE AS A DRESSING.

IT seems unfortunate that some of the best dressings smell the worst. Iodoform quickly perfumes (?) an entire house, and for him who prefers a different smell, naphthaline is at least a change, if not an improvement. Fischer introduced it to the profession in 1881; and it has alternately been asserted and denied that it forms crusts and obstructs drainage, irritates the skin, is a feeble antiseptic, and favors erysipelas.

Rydygier (*Berl. klin. Woch.*, April 16, 1883) reports his experience as almost entirely favorable, and accounts for the differences of opinion by differences of application. He applies it in fine powder, covers it first with gauze and cotton soaked in a solution of corrosive sublimate, and then with parchment-paper, or other water-proof material. Thus employed, he finds that its asserted disadvantages disappear, except that it is somewhat of an irritant, at least when mixed with the secretions of the wound; yet not to any great extent, for in a successful case of hysterectomy he applied three drachms to the wound, and several tampons in the vagina, leaving them there for seven days. A little vaseline obviates entirely the irritation.

It is free from the occasional poisonous action of carbolic acid and iodoform, and is exceedingly cheap, especially as compared with the latter.

THE great usefulness to the profession of State Boards of Health organized like those of Illinois and West Virginia, is again exemplified in a recent action of the latter with regard to one W. H. Hale, an itinerant, whose headquarters are in New York City, where he publishes a newspaper called *Health and Home*, the object of whose existence is to advertise his own eminence. In the course of his wanderings he recently visited Wheeling, "for the purpose of delivering a course of lectures and attending to such office practice in his line of specialties as was required." The laws of West Virginia require such persons to register and pay a registration fee of fifty dollars, after he has shown a diploma from a regular medical school. The fee was promptly paid, but in response to the demand for a diploma, he could only furnish a certificate of registration in New York City, and a diploma from the American Eclectic College of Cincinnati—a diploma mill comparable to that which so long disgraced our own city under Buchanan. These were not recognized by Dr. Reeves, the Secretary, and Dr. Hale was compelled to seek other fields for conquest.

We hope our readers will note his name and methods.

SOCIETY PROCEEDINGS.

ONTARIO MEDICAL ASSOCIATION.

Third Annual Meeting, held at Toronto, June 6 and 7, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE annual meeting of this Association was held in Toronto, June 6 and 7, in the Hall of the Department of Education of the Province.

In the absence of DR. MACDONALD, the PRESIDENT, through illness, DR. RICHARDSON was called to the Chair. This was the most successful meeting of the Association yet held, there being upwards of one hundred and twenty-five members present. The morning session was devoted to general business and the admission of new members. On reassembling, at 2 P.M., the reading of papers began, the first being

ON TRAUMATIC TETANUS,

by DR. BURT, of Paris, with a case exhibiting the effects of neurotomy. The tetanus occurred from a wound on the outer side of the forearm. The musculo-spiral nerve was divided above the elbow, and the cutaneous filaments severed by a transverse incision through the skin below the elbow, thus completely insulating the wound. Before the operation, spasms had been taking place every few minutes; after the operation, they were at once reduced to twelve or fifteen a day, and ceased entirely in a few days. Complete recovery followed, the patient being able to resume her usual occupation in three months.

DR. CAMPBELL, of Seaforth, next presented a case of

PRIMARY LATERAL SCLEROSIS,

and gave in detail the history. The symptoms first appeared last July. Ergot was found of greater benefit than any remedy tried.

SOME OF THE USES OF JABORANDI

was the subject of a paper by DR. MACKAY, of Woodstock. He gave condensed reports of its use in tonsillitis, asthma, congestion of the lungs, scarlatina, measles, diphtheria, and common colds, in all of which he had derived most signal benefit from it. He had never had occasion to administer more than ʒij of the fluid extract in divided doses; usually one dose of ʒss proved sufficient to cause profuse diaphoresis.

DR. MULLIN, of Hamilton, had given it in one case of common cold, producing free diaphoresis. But there was free albuminuria for the next twenty-four hours, whether or not due to the jaborandi he did not

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know. He thought it desirable to inquire into its action on the kidneys.

DR. POWELL, of Edgar, drew attention to the paper by Fordyce Barker, of New York, on jaborandi in puerperal uræmia. Of five cases to which it was given, four died. The opinion was almost unanimous, that a remedy producing such great prostration should not be given, except under special circumstances.

The next paper was on

THE TREATMENT OF TALIPES BY THE WEDGE PLASTER SPLINT,

by DR. BURROWS, of Lindsay. He described several successful cases in which this method had been adopted.

DR. WOOLVERTON, of Hamilton, treated a case of double talipes varus by bringing the foot into proper position by the hand, applying a soft flannel bandage, and over this a fixed plaster dressing. This was allowed to remain for six weeks and a similar dressing again applied. After the application had been used three times the tendo Achillis was cut. The recovery was perfect. This treatment was recommended not to be used before the age of six months by the authority who introduced it.

DR. ZIMMERMAN, of Toronto, thought that it made great difference as to the results of treatment, whether the child had walked.

DR. WOOLVERTON then read a paper on

FATTY DIARRHŒA,

with the history of a case that came under his care last summer. The patient, a woman, aged thirty-three, was in the habit of drinking much liquor. From ten to twelve ounces of fat were passed in twenty-four hours. It was semifluid, and of very offensive odor. It disappeared from the stools in a few days, to reappear for a short time some weeks later. It has not troubled her since. No fatty food had been taken, owing to a distaste for it. On microscopic examination, the fat appeared to be emulsified. Whether it was from the food or secretion, at the expense of the system, was not known. Dr. Wells, of New York, in 1854, reported a case of fatty diarrhœa, in which there was no effect on the amount or character of the fat evacuated by the consumption of or abstinence from fatty food. The sago-like mucus sometimes occurring in the stools in certain diseases of the bowels should be differentiated from fat.

DR. SHEARD, of Toronto, said he had made post-mortem examinations on three cases in which there was fatty diarrhœa at the time of death. In one there was cancer of the pancreas; in another, cirrhosis of the liver, kidneys, and pancreas; in the third, the mesenteric glands were diseased. In all these cases there was obstruction of the absorbents either from pressure or disease. The digested fat in the stools in the case of cancer indicated the agency of other fluids than that of the pancreas in the digestion of fat. He thought that fat in the stools was due to non-absorption, rather than to secretion.

DR. GROVES, of Fergus, read a paper on

A NEW METHOD OF REMOVING SOLID OVARIAN TUMORS,

with a case in which the tumor was thirty-eight inches in circumference and weighed twenty-one pounds. In operating, the tumor was enucleated, and the opening in the peritoneal covering of the tumor sutured to the peritoneal margin of the abdominal incision, which was very extensive on account of the large size of the tumor.

DR. MCNAUGHTON, of Erin, showed

A NEW SPLINT,

applicable, he thought, to all fractures of the forearm.

DR. CARSON, of Toronto, said: The late Professor Syme, of Edinburgh, always used a splint one inch wide, well padded, placed along the front of the forearm, and no one could claim better results.

DR. POWELL urged the necessity of thorough reduction in Colles' fracture, if possible. He preferred a splint with a slight pistol curve.

DR. RICHARDSON said a certain degree of deformity was unavoidable in many cases of Colles' fracture, and in the majority there was some rigidity for some time.

DR. C. K. CLARKE read a paper on *A Case of Hystero-epilepsy*, at present in Rockwood Asylum, Kingston. The symptoms were very marked.

EVENING SESSION.

DR. D. CLARK, Superintendent of the Toronto Asylum, *Vice-President*, in the chair.

DR. WORKMAN read a most interesting paper on *Aphasia*, relating especially to several cases of unusual interest met with in his long and varied experience.

DR. GRAHAM, of Toronto, read a paper on

THE BACILLUS OF TUBERCULOSIS.

It must be admitted, he said, that the majority of the more distinguished pathologists had by investigation strengthened the position taken by Koch that the bacilli described by him were peculiar to tuberculosis, and that they are immediately connected with the production of the disease. The questions they, as physicians, were interested in, were: 1. Can phthisis be diagnosed by means of the presence of bacilli in the sputa? 2. Has the number of bacilli any relation to the prognosis? 3. Has the discovery aided us to any extent in the prevention and treatment of this formidable disease?

Investigations led to an affirmative answer to the first question.

He then gave the results of the examination of the sputa of forty patients which he had examined. The conclusions arrived at by him from these experiments were: 1. That bacilli are found in the sputa of almost all, if not all, cases of phthisis; it was doubtful if there was any case of active disease in which bacilli will not be found, provided the sputa came from the lungs, and five or six examinations were made. 2. They were found on the first examination in three-quarters of the cases. 3. The presence of the bacilli is a positive evidence of the disease. 4. There are doubtful cases in which the examination of the sputa for the bacilli will be of decided value in arriving at a correct diagnosis. 5. As to prognosis, it was found that the number was in proportion to the amount and rapidity of the process of destruction. 6. It might be said as a general rule that in the more chronic cases bacilli were fewer and, he thought, smaller. His experience convinced him of the contagiousness of the disease, of which he gave instances.

DR. COVERNTON asked if bacilli were the cause of phthisis, or were only present because the soil was suitable for them. He thought phthisis had been produced by indifferent inoculation.

DR. SHEARD said it needed great care in preparing the sputa for examination for bacilli. Fat-crystals were liable to be mistaken for them. He would not accept a section of tissue for examination unless it had been submitted to ether to dissolve any fat that might be present.

DR. ZIMMERMAN asked if tuberculosis was to be distinguished from phthisis, and if syphilitic phthisis was tuberculosis.

DR. FERGUSON, of Toronto, had collected the following statistics: In 2,500 cases examined by various authorities bacilli were found in over 2,300; of the

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balance, 74 cases were doubtful, and in the rest no bacilli were found. In many of the latter the examinations were defective from various causes. Most observers were agreed that the greatest number of bacilli were found in worst cases, in which also grouping of the bacilli was frequent. Of 51 observers, 37 agree as to the contagiousness of tuberculosis; 9 were doubtful, and 5 were opposed to the view.

DR. MCPHEDRAN thought if bacilli were admitted to be a cause of tuberculosis, then the disease would of necessity be contagious, as the bacilli were readily transmitted from one person to another. He had examined the sputa of all cases coming under his care lately, finding bacilli in all but one, and that had been examined only once. He asked if fat-crystals should not be found in the sputa of chronic bronchitis as well as in that of phthisis.

DR. MULLIN asked how it was that only the bacilli of phthisis withstand the action of the strong solution of nitric acid used. He thought many cases could be cited, opposed to the theory of contagion. He thought it utterly improbable that bacilli should remain quiescent for so long a time, as some affirmed the term of incubation might last; if so, they were wholly unlike any other disease germs.

DR. RICHARDSON had always considered the disease contagious, long before bacilli were thought of. He was confirmed in that opinion by recent investigations. He did not think the long period of incubation any serious obstacle. Syphilis will, after being many years dormant, be transmitted to others. He had considered cholera contagious before it was generally so thought to be. He has used inhalations for two years, and with very satisfactory results.

DR. CANNIFF, of Toronto, thought the theory of contagiousness a very attractive one, but was not yet convinced. The history of Brompton Hospital militated against it.

DR. GRAHAM, in reply, said there was no difficulty in distinguishing fat-crystals from bacilli. He could not understand how Spina (who had been referred to during the discussion) had not found bacilli in the cases (150) of tubercle he had examimed; it was incomprehensible. "He had read Spina's article within the last few days, and thought it contained nothing convincing." In answer to Dr. Mullin, he said it was the staining that made the bacilli resist the nitric acid solution. The bacilli of leprosy were also unaffected by the acid.

DR. STRANGE related a case of

ACETONÆMIA.

Diabetes mellitus had been diagnosed, and the following evening the young man became suddenly comatose, and died in ten hours. He entered into the history of this disease and the general opinion as to its pathology.

DR. ZIMMERMAN said that some attributed the coma to fat emboli instead of the acetone in the blood.

THURSDAY, JUNE 7TH, SECOND DAY.

The Association reassembled at 10 o'clock, THE PRESIDENT, DR. MCDONALD, of Hamilton, who had just arrived, in the Chair.

DR. BATTERSBY, of Port Dover, read a paper on *Umbilical Hernia*, and DR. MITCHELL, of Enniskillen, one on *Some Cases of Poisoning*, in which three cases were related.

THE PRESIDENT then delivered his

ANNUAL ADDRESS,

in which he dealt with the objects of the Association—the promotion of the interests of the profession in Ontario. The Association occupied a place between the local Associations and that of the Dominion. He thought the meeting should be held in the east and west of the Province alternately with Toronto, as tending to promote its usefulness by awakening the interest of the various places in which it met. He next referred to the relations to the homœopaths. There was no change in the views of the general profession as to the doctrines of Hahnemann, not one of which had as yet been proved. The College of Physicians and Surgeons, the only body that has the power to grant license for practising in this Province, obviated any difficulties as to irregular practitioners; it existed to protect the public from such. The question of a library and museum in connection with the Association was next dwelt upon; and lastly the question of the use of alcoholic stimulants in treatment of disease, a matter strongly urged upon the attention of the Association by the Women's Christian Union, who asked for a reinvestigation of the therapeutic properties of alcohol. The President said the request could be quite properly entertained, since the opinions of many eminent medical men had undergone no little modification on this question of late years.

After the conclusion of the address, DR. RADFORD, of Galt, showed a small boy with chorea which had failed to yield as yet to treatment.

DR. ZIMMERMAN recommended circumcision if the prepuce was long.

DR. MCPHEDRAN, of Toronto, showed a boy, aged 7, suffering for two years with an eruption closely resembling Hebra's prurigo.

AFTERNOON SESSION.

Cancer of the Larynx was the subject of a paper by DR. RYERSON; *Hip-joint Disease* by DR. FERGUSON; and *Enteric Fever* by DR. CASSIDY.

DR. DAVIDSON, of Toronto, read a paper on a

CASE OF SUPERFŒTATION.

Delivery took place; one fœtus being four months and the other four weeks old. No decomposition in either. The catamenia had not ceased during the pregnancy. From the condition of each fœtus and the continuance of the catamenia, he considered it a case of genuine superfœtation.

DR. CAMERON believed it to be a case of twin pregnancy with arrested development of one ovum.

REPORTS OF COMMITTEES.

The Public Health Report urged the importance of keeping up the public interest in sanitary matters and recommended the teaching of hygiene in the public schools.

The temperature question, which was submitted to the Association in the President's Address, was referred to a special committee, to report at the next meeting.

A resolution was adopted asking the Government to have health boards and medical health officers appointed for each municipality.

The report of the Committee on Ethics condemned, in the strongest terms, consultations with homœopaths and all irregulars, as well as advertising in any form. There was not time to act on the report, so it was referred back to the Committee to be brought up again next year, but the strong approbation evinced, as each clause was read, went to show an attitude of unswerving hostility to any departure from the highest standard of ethics.

Steps were taken towards the organization of a museum in connection with the Association, and the President and Secretary appointed a committee to memorialize the Council of the College of Physicians and Surgeons on the subject, and to bring the matter before the government with the request for funds to aid in its establishment.

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Two specimens of rare interest were shown among the collection of pathological material on exhibition, one,

A HEART WITH ONLY ONE VENTRICLE AND ONE AURICLE,

from a girl aged 12, by DR. A. A. MACDONALD, of Toronto. The auricle had a rudimentary partition, but its cavity was really one chamber only. The child was always cyanosed and not able to go about much.

The other specimen was

CONJOINED TWINS,

born at Queen Charlotte's Hospital, London, England. They weighed five pounds and were fourteen inches long. The specimen was loaned to the Association by Dr. Ralph Leslie, of England. The union extended from the manubrium to near the pubes. There was only one funis. Both children were well developed.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—DR. W. CLARK, of Toronto.

Vice-Presidents.—DRS. WORTHINGTON, of Clinton; PHILIP, of Brantford; MCGILL, of Osborne; and RICHARDSON, of Toronto.

Recording Secretary.—DR. WHITE, of Toronto.

Treasurer.—DR. GRAHAM, of Toronto.

Corresponding Secretaries.—DRS. GRAHAM, of Brussels; MACKAY, of Woodstock; I. H. CAMERON, of Toronto; and AYLESWORTH, of Collingwood.

The Association then adjourned, to meet next June in Hamilton.

A *conversazione* was held in the evening in the galleries of the Education Department, in which the Annual Exhibition of the Royal Canadian Academy of Arts and the Ontario Society of Artists is at present being held. About eight hundred were present, and the evening was spent viewing the exhibition, which was extensive and contained many works of rare merit.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, May 22, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

DR. A. C. POST presented a patient upon whose hands he had performed nine operations for the relief of cicatricial contractions from burns. The case was made the basis for the following paper, entitled

AN EXTREMELY COMPLICATED CASE OF CICATRICIAL CONTRACTION FROM BURNS.

(See page 707.)

DR. SANDS said he had operated twice for the relief of contraction of the fingers caused by a burn of the palmar surface of the hand, and in both cases he had had the advantage of Dr. Post's counsel and assistance. He performed operations similar to those which had just been described, and was surprised to find how freely the cicatricial tissues could be divided without causing mortification. In both of these cases it was nesessary to resect several of the joints in order to bring the fingers into a straight position. Subsequently, the fingers of those joints which had been resected were considerably shortened, still their position was very much improved. He had noticed that where resection had been made motion was destroyed, and he would like to ask Dr. Post if he had succeeded in restoring any amount of motion in these resected joints.

DR. POST replied that absolute rigidity had been prevented, and that it was rather desirable that very free motion should not be established because there are no lateral ligaments, and free motion could not be established without making the movements of the fingers wabbling or flail-like.

The PRESIDENT asked if, in exsection, the head of both bones was removed.

DR. POST said that only the distal end of the proximal bone was removed.

The PRESIDENT asked if Dr. Post proceeded in the same way for contraction of the palmar fascia.

DR. POST replied that he performed substantially the same operation. He also thought that Mr. Adams, of London, was in error in speaking of Dupuytren's contraction as being always due to gout, as he had seen it arise from a variety of traumatic causes.

DR. G. A. PETERS said he had recently had a case in which this contraction was brought about by rolling.

DR. POST remarked that in traumatic cases the integument is firmly adherent to the fascia, and in the cases which he had seen, it was not an easy matter to make the incisions without dividing the fascia.

The PRESIDENT said that he had recently seen two cases with Dr. Abbe, who performed the operation described by Dr. Post, and he was surprised at the moderate amount of inflammation which followed the multiple incisions.

DR. PETERS asked how long counter-extension was maintained.

DR. POST said, sometimes two or three months, alternating with passive motion. He further remarked that there was a curious feature in all cases of cicatricial contraction, which was that, the parts having been bound down, the process of restoring them to their original position by passive motion is very painful.

INTESTINAL OBSTRUCTION.

DR. SANDS presented two specimens removed from the body of a man on whom he had performed the operation of inguinal colotomy for the relief of intestinal obstruction. As would be remembered, in the month of March, 1882, he exhibited this patient to the Society three weeks after the operation. It would be remembered, also, that the patient had had a fecal abscess to the left of the median line in the umbilical region; that the abscess had closed, and that coincident with closure of the abscess, there appeared signs of intestinal obstruction, which were complete at the time when colotomy was performed. The operation gave entire relief, and the man was able to be about for nearly one year. It was noticed, however, that during all this time he was exceedingly harrassed by an inability to control the artificial opening. This opening was not more than one-third of an inch in diameter, but no form of bandage or truss had any effect in preventing the feces, which were very thin, from escaping. Owing to this infirmity he was prevented from pursuing his occupation. Dr. Sands lost sight of the patient for a long time, but finally heard that he was again suffering from intestinal obstruction. When he saw him, he found that the escape of feces from the artificial anus was imperfect, and he therefore enlarged the opening somewhat by the use of sponge tents, giving considerable relief.

On the fifteenth of April last the patient died, and an autopsy was made on the following day. Death resulted from peritonitis, the cause of which did not seem to be quite clear, although most probably it was due to inflammation occurring at the site of the previous abscess. On opening the abdomen, the coils of intestine were found almost everywhere adherent. Recent lymph, mixed with sero-purulent fluid, covered the surface of the intestines, and the pelvic cavity contained a certain amount of turbid fluid. No gas escaped when the cavity was opened, and there was no reason to believe that the peritonitis had been occasioned by perforation of the intestine. The site of the previous

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abscess was found to be the seat of a phlegmonous inflammation, apparently on the verge of suppuration, while opposite to this the large intestine was found firmly adherent to the abdominal wall, the part attached being the descending colon a short distance above the sigmoid flexure. There was also noticed a very firm adhesion between this part of the descending colon and a segment of the small intestine, which subsequently proved to be the jejunum. The large intestine above the sigmoid flexure was enormously distended. The diameter of the distended gut was not measured, but was estimated as being three or four times the normal calibre. This distention extended from the cæcum to a point very near to the sigmoid flexure, where the occlusion of the large intestine was complete. A segment of the abdominal wall was removed corresponding with the site of the adherent large intestine, which was also removed, together with a piece of the small intestine.

It was noticed that the feces contained in the large intestine were remarkably soft; such are commonly found in the small intestine. In the large intestine below the point of complete occlusion was found a small amount of feces of firm consistency and dark color. The artificial anus was found pervious, the opening being about one-fourth of an inch in diameter, and it seemed difficult to understand why the feces did not escape from it. A portion of the abdominal wall, corresponding to the site of the artificial anus, was also removed. The two specimens were presented. The first consisted of a portion of the large intestine adherent to the abdominal wall, a portion of the integument, and a piece of adherent small intestine. The most interesting point connected with this specimen was the presence of a large opening, oval shaped, and one inch in diameter, leading from the colon into the jejunum. Beside this there were two abnormal channels; one narrow, fistulous tract, starting from the large intestine and adjacent to the opening which led to the small intestine, and passing through inflammatory products to a point in the large intestine about an inch below the point of complete obstruction. Just above the complete obstruction there was also a small orifice connected with a smaller tortuous channel, communicating with the small intestine.

The second specimen showed the parts concerned in the formation of the artificial anus. The operation had been performed by cutting through the peritoneum. Pains were taken not to examine too curiously the contents of the abdomen, and Dr. Sands opened the distended intestine, not knowing precisely what it was, but he believed it to be the cæcum from the size and position of the gut, and from the fact that it seemed to be fixed to the posterior abdominal wall. The specimen showed that the opening was made into the front wall of the cæcum, near the lower wall of the cul-de-sac. The mucous membrane of the cæcum and the vermiform appendix was considerably thickened, but beyond this no abnormal changes were noticed.

It was interesting to consider what the course of the feces must have been in this patient during life. Instead of passing in the usual manner through the entire length of the small intestine, they must have been diverted to a great extent, through the large opening already described, into the large intestine, just above the junction of the descending colon with the sigmoid flexure. Being prevented from passing downward toward the anus, they must then have traversed the colon in a backward direction toward the cæcum. The ileo-cæcal valve being short, and the artificial anus very narrow, distention of the colon naturally followed, although it seems as if this might have been relieved by dilating the artificial anus, and by the use of enemata.

Perhaps it was in consequence of the fact that the feces did not traverse the small intestine, that the general condition of the patient deteriorated, leading to rapid emaciation. When the large opening between the large and the small intestine was established it was impossible to say, but it was plain that the fecal abscess was connected with the large intestine, because the small intestine was not adherent to the abdominal wall. No neoplasm was found in any part of the abdominal cavity, nor was there any foreign body found in the discharges at the time of the opening of the abscess which could explain the perforation.

Whether the two perforations—that of the large intestine toward the external surface, and that of the large intestine toward the small intestine—had the same cause—namely, follicular ulceration of the large intestine—could not be stated, but this was rendered possible by the several lesions of the large intestine.

The case was remarkable in the fact that an abscess allowing of the escape of the entire feces should close spontaneously in spite of complete occlusion of the sigmoid flexure, and then give rise to symptoms which required the formation of an artificial anus.

Examination of that part of the mucous membrane of the large intestine which corresponded with the site of the former abscess showed no cicatricial tissue to mark the previous existence of an ulcer in that situation.

The other lesions found were fatty liver with commencing cirrhosis, and a cyst in one of the kidneys, without any other evidence of renal disease. The man was fifty-nine years of age at the time of his death.

The PRESIDENT remarked that not unfrequently tubercular ulcers perforated the wall of the intestine, and afterward the feces found their exit through another part of the intestine, perhaps far distant from the original point of rupture; but in the case reported by Dr. Sands, there was no evidence of tubercular ulcers. The President had one case, that of a young lady, suffering apparently from tuberculosis, in which the duodenum opened into the colon, and the patient perished simply from lack of nutrition, and with evidence of peritonitis extending over weeks and months.

DR. BRIDDON had an impression that diseases of similar character were not infrequent among colored people. He recollected that the late Dr. Whitall expressed to him that opinion, and showed him a case where an abscess of the abdominal walls was followed by a fistulous communication of the intestines with stercoral ulcers resulting in abscess, and stated that these cases were not uncommon, but that they were always fatal. Whether such ulcers were tubercular or not, he was not prepared to say.

DR. PETERS.—Probably yes.

DR. BRIDDON had a patient under observation who was admitted to the Presbyterian Hospital with a sinus at the umbilicus, giving exit to flatus and fluid feces. He was unable to obtain any history of diarrhœa or of dysentery, or very much pain; and on examining the abdominal walls, the only spot of induration was in the middle line, between the umbilicus and pubis. That led him to make a vaginal examination, and he found a swelling in Douglas' cul-de-sac, but he was unable to make out whether it was the result of infiltration or was a retroverted uterus. The retroverted uterus could be made out, but the mass seemed to be too large for that condition alone. He was able to introduce a sound four or five inches into the fistulous track, and he believed that it passed directly into the intestine.

DR. POST said that a number of years ago, he reported a case to the Pathological Society, that of a

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gentleman who was thrown from a buggy in Central Park, and received a severe contusion in the loins, which led to the formation of an abscess with which the descending colon communicated, and for the remainder of his life he passed his feces through this fistulous opening. On examination of the body at the autopsy, he found quite a close stricture, which had interfered with free evacuation of the bowel in either direction. The greater part of the feces passed through the fistulous opening, and always where there was solid matter it passed with pain and difficulty. He thought that, probably, free colotomy would have benefited such a patient.

DR. BRIDDON asked Dr. Sands whether he regarded the difficulty which his patient experienced in retaining feces, depended upon the location of the artificial anus, or upon the fluid condition of the feces from the communication with the small intestine.

DR. SANDS said that he did not know, but he imagined that it depended considerably upon the situation of the artificial anus, and he should regard this as a great drawback to the operation of inguinal colotomy.

DR. BRIDDON remarked that he had not seen a case in which the patient experienced any trouble in retaining feces after lumbar colotomy.

ACUTE OSTEO-MYELITIS FOLLOWING SLIGHT INJURY OF THE ANKLE.

DR. MCBURNEY presented the leg and foot, removed a few days since from a child nine years of age, which illustrated how extensive might be the damage done by a neglected periostitis. Two months ago the child, while jumping the rope, struck the ankle with the other foot, which gave her extreme pain and caused her to fall. Curiously enough, the child was allowed to go to school on the next day, and continued to do so four weeks, but at the end of that time the pain and suffering were so intense that a physician was sent for, who regarded the case as one of cellulitis, and treated it as such by the application of poultices, subsequently made some incisions, and gave vent to a large quantity of pus. The case, however, did not progress favorably, and subsequently Dr. McBurney was invited to see it in consultation. He found the foot exceedingly œdematous, and also the leg up to the knee, and the skin was covered with blebs. The child's general condition was very bad; there was alternating high and low temperature, with sweats, etc.; quite a large granulating orifice on the inner aspect of the limb, and a similar one on the other aspect. There was evidence of extensive denudation of bone, and the epiphysis of the tibia at the ankle was separated. The joint was opened; the articular cartilages were more or less destroyed. Dr. McBurney amputated the limb at the middle of the leg, closed the wound with carbolized silk sutures, powdered it with iodoform, inserted a drainage-tube at the lower angle, and applied a peat dressing over the whole. The temperature had not risen above 99° since the operation. Previous to that it fluctuated between 99° and 102°, accompanied by sweats and general constitutional disturbance. The dressings had been changed at intervals of varying length, the first being allowed to remain five days, at the end of which time the drainage-tube was removed, and the progress of the case had thus far been eminently satisfactory.

URINARY CALCULI.

DR. BRIDDON presented specimens, and related the history of a case as follows: On Sunday afternoon he was called to the Presbyterian Hospital to see a child two years old, who had suffered eight or nine months ago from an attack of abdominal pain, which had been called renal colic. Since that time he had had frequent attacks of pain, frequent micturition, and a disposition to pull upon the prepuce. Two or three days before admission he had an attack of retention of urine which was relieved by the catheter. On the night before admission he attempted to empty a distended bladder, but only with partial success. On the afternoon of the day of admission the bladder was distended up to the umbilicus, and the house-surgeon attempted to introduce a catheter, but found an obstruction about three inches from the meatus, which he was unable to overcome, and the bladder was then aspirated. Dr. Briddon saw the patient at nine o'clock in the evening, passed a silver catheter, No. 6, down to the obstruction, and without material difficulty succeeded in introducing the instrument into the bladder and emptied it. The child's temperature that night was 106° F., a fact for which he was not able to account. On the following day the temperature was 105° F., and the bladder was again distended. He introduced an instrument, encountered an obstruction, but whether it was in the prostatic portion of the urethra or in the bladder he was unable to say positively. He performed median lithotomy, encountered no obstruction in entering the bladder, readily came upon the smaller of the two calculi presented, which was exceedingly minute, and removed it. He then withdrew the staff, introduced the finger, and found the large calculus lying in the incision; probably it was the calculus which had been impacted within the urethra, and it was about five-sixteenths of an inch in diameter.

DR. BRIDDON also presented a specimen of the same character, which he obtained in 1861. He was called to visit a child two years and seven months old, who was suffering from retention of urine. He introduced a catheter, detected a small calculus, but found no difficulty in drawing off the urine. On the following day he was about to proceed to remove it by lithotomy, and as soon as he drew the prepuce down, he found a small calculus impacted in the meatus, about half of it projecting, and it was easily removed. After its removal, he introduced a sound into the bladder and detected a large stone, which he removed by the lateral operation.

He was unable to explain the high temperature which occurred with the retention of urine in his first case.

DR. POST remarked that retention of urine was a cause for considerable constitutional disturbance, and probably of itself would explain the elevation of the temperature.

DR. BRIDDON thought it unusual for retention to be associated with such a high temperature.

DISLOCATION OF THE HEAD OF THE FEMUR IN ACUTE RHEUMATISM.

DR. C. T. POORE narrated a case, as follows: On Tuesday last he was called to see a boy, seven years of age, who had had inflammatory rheumatism for four months. As a result, there was contraction of both knees, and the left thigh was flexed and adducted considerably. On examining the limb very carefully, he found that the head of the femur was dislocated upon the dorsum of the ilium; he thought that there was no doubt that it was a case of acute rheumatism, and that the hip had been out for at least six weeks. The dislocation was reduced, but it recurred. He proposed to divide the tendons and place the patient in a fixed apparatus. The acute attack of rheumatism involved both knees and the left hip—which was the one that was dislocated—and also the elbows.

THE PRESIDENT said it would seem that such a dislocation could not occur without some change in the acetabulum. The inference would be naturally that there was some coxitis present.

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DR. POORE said he thought there was no doubt that it was a case of simple acute rheumatism. There certainly was no evidence of morbus coxarius. Further, the hip-joint has been known to be dislocated in acute diseases; for example, in typhoid fever, a case of which was recorded last year in one of the Liverpool journals.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, June 7, 1883.

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. FRED. C. SHEPPARD exhibited the uterus and appendages removed post-mortem from a case of

INTERSTITIAL OR TUBO-UTERINE FŒTATION,

and read the following report:

Through the courtesy of Dr. George S. Hull, of Chambersburg, Penna., I am enabled to present, this evening, the post-mortem specimens of one of the rarer forms of extra-uterine pregnancy. The history of the case is given in such a clear and complete form by Dr. Hull, that I will read it in his own words. "(April 11, 1883.) A few days ago it fell to my lot as Coroner, to hold an inquest on a colored woman who had died suddenly. Vomiting followed by death, together with a history of family troubles, led her friends to suspect her husband of poisoning her."

"About three A.M., pains had set in in the left inguinal region accompanied by severe vomiting; I could not learn whether the pain preceded the vomiting or *vice-versa*. A physician was sent for; he did not go but sent three ¼ grain morphia powders. She took one every hour, seemed easier, and the vomiting ceased. At noon becoming very weak, the doctor was again sent for, responded in person, and found the patient pulseless at the radials; he ascertained that she had been constipated for about a week, and made a diagnosis of obstruction of the bowels; he gave five compound cathartic pills, and ordered an enema. In an hour the patient was dead."

"*Autopsy:* Peritoneum inflamed (recent—no pus), stomach empty save the pills, which were liquefied, *Intestines* normal. About two quarts of clotted blood were found in the abdominal cavity. The womb was ruptured, a small circular rent in the fundus about the left cornu."

"The uterus was removed and the rent enlarged; a fœtus of about three months with membranes entire was found. The placenta seemed attached at the point of rupture."

"The pregnancy seemed to be interstitial, the tube being involved. The lower half or two-thirds of the uterus was much hypertrophied and contained two or three teaspoonfuls of muco-pus, which could be pressed out at the os uteri. There was no communication between the pus-cavity and the cavity containing the fœtus. The uterus was not adherent to the other organs."

A sketch by Dr. Hull shows the uterus inclined to the right side, the fœtal sac occupying very nearly the normal position of the fundus, and the point of rupture a little to the left of the line of the umbilicus.

"It occurred to my mind that the rupture was spontaneous, causing the vomiting and pain of the night; however, the woman had eaten of sauer-kraut for supper, and it might have caused the vomiting, and that in turn the rupture. The morphia allayed the symptoms for a time, but the hemorrhage was slowly going on, and peritonitis setting in; the former predominating, death took place from loss of blood. She was the mother of one child, and was to all appearances in good health up to the time of the accident."

An examination of this very interesting specimen shows an enlarged womb with a dilated cavity, the walls of which are hypertrophied to a thickness of seven-eighths of an inch; lining this cavity is a structure which appears to be a true uterine decidua: the os is small, with an irregular stellate outline, and is perfectly patulous; the cervix is partially absorbed. The right ovary is small and flattened; the left of about normal size; at the point of entrance of the left Fallopian tube is a large intra-mural cavity, which contained the fœtus; the outer wall of this cavity is exceedingly thinned, and presents ragged edges at the point where rupture took place; to the inner wall are attached some remnants of the placenta; no communication can be detected between the fœtal cyst and the uterine cavity. The fœtus is apparently of from three to four months, and is presented with the membranes unbroken.

To cases of this class the terms interstitial, tubo-uterine, utero-interstitial, and parietal have been applied. Dr. Parry, in his work on *Extra-Uterine Pregnancy*, classifies them under the head of "tubo-uterine, or those in which the germ is arrested in that portion of the tube which passes through the uterus." They are very rare. An analysis by Hecker (quoted by Parry) shows twenty-six cases out of two hundred and twenty-two, and Parry in his analysis of five hundred cases of extra-uterine pregnancy, finds but thirty-one of the tubo-uterine variety, but two hundred and thirty of his cases are grouped under the general head of doubtful. Mr. Alban Doran, (*Obstet. Trans.*, vol. xxiv., 1882, p. 234) has been able to find but six specimens in all London, though he states that "we see a goodly array of the more frequent tubal form in almost every museum." I will not occupy your time this evening by referring to the question of pathology or of diagnosis, as both points cover the entire ground of extra-uterine pregnancy, and will be discussed in a future paper.

The proper treatment to adopt in these cases is however a point of great interest, and merits notice. A ruptured extra-uterine fœtal cyst may cause death instantaneously, as in the case of the English actress mentioned by Dr. Chabazian (*Obstet. Trans.*, 1882, p. 157). "She was taking an ice in the Bois de Bologne, she fell down suddenly, and she was dead." Poisoning being suspected, an autopsy was performed. No trace of poison was detected, but the ruptured pouch of an extra-uterine fœtation showed the cause of death. In this case, of course, there was no time for surgical interference, but in many, as in the one reported this evening, an appreciable interval elapses between the first symptoms and the fatal issue. The diagnosis being made, what would be the proper course to pursue? Unquestionably, laparotomy. An exploratory incision would at once reveal the true condition of affairs, and the surgeon could either incise the cyst, turn out the contents, ligate the bleeding points, suture the edges to those of the abdominal wound, and establish drainage; or, if thought better, remove entire the uterus and its appendages. Either plan would offer a very fair prospect of recovery, while if left without surgical aid the patient would be doomed to inevitable death.

A number of points of interest present themselves in the study of this interesting case, but the limits of a paper of this character forbid us taking them up. I might merely call your attention to the large quantity of blood; Dr. Hull states, about two quarts exuded from a comparatively trifling rent. This fact has been repeatedly commented upon by other observers. Dr. Parry states that some of the most severe hemorrhages occur when the orifices are very small, and cites a number of instances in which from several pounds to two and a half gallons of blood have been found in the

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abdominal cavity after rupture of the extra-uterine cysts.

In conclusion, let me recall to your mind Dr. Hodge's case. His patient went to the eighth month, labor was brought on by dilating the os uteri, and the child delivered by rupturing the septum between the uterine cavity and the fœtal sac; the child was delivered by the natural passages. The child lived two hours, and the mother made a complete recovery.

DR. B. F. BAER had examined the specimens, and felt a doubt of its having been of the usual form of tubo-uterine gestation. That form is the rarest, and is considered the least dangerous because not so liable to rupture in consequence of having the muscular tissue of the uterine wall to strengthen it. In Dr. Hodge's case, the septum of uterine tissue between the uterine cavity and the fœtal sac was so thin that it could be scratched through with the finger. As the case reported by Dr. Sheppard terminated by rupture about the third or fourth month, it resembles a tubal in that particular. The question of operative interference is very interesting. In this case, as ten hours elapsed between the accident and death, an operation would be justifiable if the diagnosis could have been established.

DR. ALFRED WHELEN remarked that Miss Neilson lived ten hours after the first shock of her illness, and the published report of the autopsy stated the cause of the death to have been rupture of varicose ovarian veins.

DR. SHEPPARD, in closing the discussion, remarked that Dr. Parry classes all of this type of cases as tubo-uterine. The sac in this case was undoubtedly in the uterine wall, as the specimen shows. He had not been able to pass a bristle from the uterus into the Fallopian tube. As regards the possibility of the spontaneous stopping of the hemorrhage as a reason for postponing the operation, he would not consider it advisable to wait, for even when the laceration is very small, as in this case, the hemorrhage may, and probably will, be excessive; this hemorrhage is the cause of death in most, if not all, of the cases, and the only chance for the patient is in stopping the hemorrhage and removing the already effused blood. If the diagnosis can be made, laparotomy is justifiable, and would be the only resort. In the report by the French physician to the Obstetrical Society, no name is given, the patient is simply mentioned as an English actress.

KNOTTED UMBILICAL CORD.

DR. CLEEMANN exhibited for Dr. John A. Hunter an umbilical cord tied into a complete single knot. There was no difference in size of any portion of the cord and there had been no interference with the nutrition of the fœtus. Dr. Hunter had not been present at the birth of the child, but had come in soon afterwards, and in tying the cord and removing the placenta he noticed the knot. In a case reported by Dr. Wm. F. Jenks to this Society, a failure of the fœtal heart was noticed by auscultation, the child died in utero and the knot in the cord was suggested as a probable cause of the death of the fœtus. Such a knot as is seen in Dr. Hunter's case might be formed during parturition if a loop of the cord was around the child's neck and it was loosened and the body allowed to pass through it in the process of extraction.

DR. MONTGOMERY thought that such a knot, if existing in utero, might develop a murmur that could be discovered by auscultation.

ACUTE HYDRAMNIOS.

DR. E. E. MONTGOMERY remarked that although dropsy of the amnion is a quite frequent condition, that above named is exceedingly rare. For this reason he has felt that the following case was worthy of record. June 4, 1883, he saw Mrs. P., in consultation with Dr. Chase. She was pregnant for the fourth time. In the one preceding this she had miscarried. Her last menstruation occurred December 10, 1882. In her former pregnancies she had been quite small, carrying the fœtus low down. This time the abdomen was larger than formerly at the same period, but she continued without any special discomfort until one week ago, when, without any assignable cause, the abdomen began rapidly to increase in size, and continued to do so. The increase has been attended by pain, tenderness, difficulty in breathing, entire loss of sleep for three days, loss of appetite, and scanty flow of urine. She has been obliged to maintain a sitting posture, as lying down greatly increased the difficulty of breathing. They examined the urine, but found it free from albumen. The abdomen was distended more than we would expect to find it at full term. The tumor projected well forward and upward and a little more prominent to the right. It was perfectly regular in outline. The skin of the abdomen was smooth, tense, and glistening, and could not be pinched up over the tumor. It was quite tender to pressure. Short-waved fluctuation was distinct over the whole surface, percussion was dull, a slight tympanitic resonance could be determined in both inguinal regions. No part of the fœtus could be distinguished by abdominal palpation. In fact, all the external signs were those of an ovarian tumor. They imagined they heard the heart-sounds, but so indistinctly as to be uncertain. She said she had felt the fœtal movement for several days very slightly. Per vaginam the cervix was found dilated, the os open so as to admit two fingers to enter it. The vertex of a fœtus was felt presenting, and, singularly, was but slightly movable.

Considering the rapid enlargement in a few days, the extreme discomfort of the woman, as well as the imperilled circulation and the extreme improbability of the woman or fœtus surviving until the latter had reached a viable age, they concluded the best course was to induce premature labor, and from the urgent need of relief, to cause it by rupturing the membranes. This he did, and on the evening of the same day a stillborn fœtus was extracted. The upper part of the abdomen still continued almost as large as before. Examination per vaginam revealed the membranes of a second child. The rupture of these was followed by a gush and discharge of an enormous quantity of water. The second fœtus and the placenta were soon extracted. The latter was single with two cords. One cord appeared to have only a membranous attachment, but closer examination showed that it had been torn off from the base of the other cord. The quantity of liquor amnii was so great that it soaked through folded quilts, mattress, floor, and ceiling, and dripped upon the floor of the room below. The uterus contracted firmly and the patient was at once relieved. The children were both males, and well developed for the sixth month; the second child lived a few minutes.

The fixed position of a fœtus in the os in these cases has been given by McClintock as a sure indication of a plural pregnancy, but I must confess that this did not occur to me at the time, though I was unable to account for the anomaly. The existence of a single placenta in twin pregnancies is said always to be accompanied by children of like sex, this theory is here confirmed as far as is possible by one case. As to the cause of the condition authorities greatly differ. Gervis, in *St. Thomas Hospital Reports*, brings the causes under three heads: 1st. Cases due to inflammatory conditions of the amnion. 2d. Cases where the decidua has been found diseased and hypertrophied, but the amnion healthy. This will cause effusion into the

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amnion by transudation owing to disturbed circulation. In these cases the fœtus suffers and may atrophy. 3d. It may arise from some maternal blood dyscrasia of uncertain nature, but evidencing itself by the same condition recurring in successive pregnancies in the same patient. Puerperal albuminuria may be the cause, and comes under this head. Simpson says disease of the placenta is likely to recur in the same individual. Savage asserts that an œdematous condition of the placenta is present in all cases of hydramnios. McClintock found a morbid condition of the placenta in every case. Mercier always attributed it to inflammation of the amnion. Others have ascribed it to obstruction of the fœtal portal circulation, or in the cord giving rise to transudation into the sac from the surface of the cord. Hydramnios greatly endangers the life of the fœtus. Of forty-three cases collected by McClintock, in which children were born where this condition existed, twenty were stillborn, sixteen of these had ceased to live for some days or weeks before labor, eleven of those born living died in a few days. Of thirty-three cases, four mothers died, showing a high maternal mortality.

In this patient the success of the treatment was greater than expected. As the distention had been so rapid, they feared loss of power in the walls of the uterus, and a consequent long first stage and liability to hemorrhage. It becomes an important question to decide whether they were justified in undertaking so promptly the induction of premature labor, but they felt that the probability of the death of the fœtus and the danger to the mother certainly in this case justified the procedure.

DR. B. F. BAER read the following

SUPPLEMENT TO THE PAPER ON THE EFFECT OF THE OPERATION FOR THE RESTORATION OF THE LACERATED CERVIX UTERI ON FERTILITY, CONFIRMATORY OF THE VIEWS THERE ADVANCED.

He there expressed the conviction, based upon his own experience, that sterility did not follow as a result of the operation, as had been asserted, but because the pathological conditions which almost constantly exist with the laceration were frequently not relieved, and this applied especially to the old cases. He there made this statement, "The longer the time which has elapsed between the occurrence of the injury and its repair (pregnancy being absent during this time), the greater and more permanent will be the changes in and about the uterus, which almost necessarily result in a continuance of the sterility after the cervix has been restored;" and he also said that if five years or more had expired between the occurrence of the injury and its repair, sterility would be likely to remain. In support of this, he reported twenty-seven cases, of which number thirteen had been sterile from six to sixteen years. Of this number, not one has become pregnant since the operation; but of the eight cases in which pregnancy had occurred within two to five years previous to the operation, he reported four that had become pregnant, and he now adds two more.

Case V.—Mrs. X., aged 32 years, mother of three children, youngest three years of age, complained of severe metrorrhagia every three weeks, and profuse leucorrhea in the intervals, together with a dull aching pain in the lumbar region and pelvis and a sharp spasmodic pain in the bladder, which caused an almost constant desire to micturate. She had lost weight, was anæmic and nervous, and had so many obscure aches and pains that the doctor took refuge in writing the words "general hyperæsthesia from nervous exhaustion." Physical examination showed the perineum to be lacerated to the external sphincter ani muscle, but not through it. The cervix uteri was torn bilaterally to the vaginal attachment, but not much hypertrophied. The body of the uterus was only slightly enlarged, but its cavity was relaxed and granular. On January 30, 1881, after four weeks' preparatory treatment, he operated on the cervix and secured a good result. He was made anxious on the second day after the operation by a rise of the temperature to 102°, which, however, subsided to the normal by the next day. This rise he ascribed to the use of the curette just before operating, which he now thinks ought not to have been done. This is the only instance in which he has observed a perceptible increase of temperature after this operation. This patient objected so strongly to the use of the catheter that he allowed her to pass her urine spontaneously. Since union was perfect here he allowed his next patient to do the same, with a like good result, and this has been his custom ever since. It was his purpose to restore the perineum, but she was so much benefited that she refused to permit it, and returned to her home in Michigan. A communication received a few weeks since informed him that she was spontaneously delivered at term six months ago.

Case VI.—Mrs. M., has had three children at term and one miscarriage, the latter two years previous to February, 1878, at which time she first consulted him. She complained of a dragging pain in the back from the sacrum to the nape of the neck, with menorrhagia and leucorrhœa. The neck and body of the uterus were hypertrophied, soft, and tender, and the former was badly torn on both sides; the mucous membrane was everted and abraded; sound entered four inches. February 17, 1880, he operated for the lacerated cervix; union was immediate. In his case-book, October 25, 1881: "This patient has been in excellent health since the operation; whereas, I had pursued the ordinary local treatment at intervals during two years before it, with only temporary improvement." She is now in the fifth month of gestation. This makes seventy-five per cent. of pregnancies following the operation of the eight cases of this class.

MEDICAL SOCIETY OF NEW JERSEY.

One Hundred and Seventeenth Annual Meeting, held at Atlantic City, June 12 and 13, 1883.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 12TH, FIRST DAY.

THE Medical Society of New Jersey met in annual convention at four o'clock, P.M., the PRESIDENT, JOHN W. SNOWDEN, M.D., of Waterford, in the Chair. The Vice-Presidents and other officers were in their respective seats.

The session was opened with prayer by the Rev. Joseph Garrison, of Camden.

There was an unusually large attendance of members, every District Society in the State except Sussex being represented by delegates. There were also present a large number of invited guests and corresponding delegates, among whom were Dr. Neal O. D. Park, from Rhode Island; Dr. Ed. C. Mann, from New York; and Drs. Henry Smith, Wm. B. Atkinson, W. H. Whitcomb, Hiram Corson, D. F. Woods, J. Solis Cohen, P. B. Walker, L. A. Duhring, W. Goodell, H. Leffman, and J. T. Eskridge, from Pennsylvania.

DR. BOARDMAN REED, in behalf of the Atlantic District Medical Society, and HIS HONOR CHARLES MAXWELL, Mayor of the city, addressed the Society, extending to it a cordial welcome to the hospitality of the district and city, and inviting the members of the Society and their families to participate in the excursion and banquet given by the citizens of Atlantic City.

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REPORTS OF DELEGATES TO CORRESPONDING SOCIETIES were read by Drs. B. A. Watson and D. C. English, delegates to the American Medical Association, and W. W. L. Phillips, delegate to the Medical Society of Pennsylvania.

THE ANNUAL REPORT OF THE STANDING COMMITTEE was then read by the *Chairman*, DR. C. J. KIPP, of Newark. It portrayed the course and prevention of disease in the various parts of the State as reported by the district reporters. Throughout the State the prevalence of epidemics of zymotic disease is noted; scarlet fever, diphtheria, measles, pertussis, and mumps seem to have been universally present; scarlet fever and diphtheria often following each other closely in the same patient. Smallpox was reported in Trenton and Paterson. Pneumonia in epidemic form, and often fatal in character, was reported from several counties. Dysentery was epidemic in Essex and Middlesex. Reference was made to the interesting cases reported by members during the year.

The permanent establishment of the Society for the Relief of the Widows and Orphans of Medical Men of New Jersey was referred to. Also that free dispensaries had been opened in Jersey City, Trenton, and Paterson, and that hospital buildings had been erected in Orange, Elizabeth, and Plainfield.

The necrology of the year records the death of Drs. J. S. Payne, of Union County; J. W. Corson, Wm. Pierson, and A. W. Dougherty, of Essex; H. A. Hopper and K. K. King, of Bergen; J. W. Schenck and I. B. Mulford, of Camden; A. E. Budd, of Burlington; J. R. Leal, of Passaic, and C. L. Pearson, of Mercer.

REGISTRATION AT THE LATE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

DR. E. M. HUNT, of Metuchen, introduced the following:

Whereas, The American Medical Association, at its late meeting, made new requisitions of delegates, before their names were allowed to be enrolled.

Resolved, That in nominating delegates to that body the Nominating Committee be requested to confer with our Committee on Ethics, and if they think necessary, with this Society, as to the propriety of this course and what action needs to be taken in reference thereto.

After considerable discussion the resolution was lost by a vote of ten in favor and thirty-two against it.

The following committees were then announced by the President:

NOMINATING COMMITTEE.

Atlantic, D. B. Ingersoll; *Bergen*, D. A. Currie; *Burlington*, T. T. Price; *Camden*, E. L. B. Godfrey; *Cumberland*, J. Ingram; *Essex*, D. S. Smith; *Gloucester*, G. C. Laws; *Hudson*, W. P. Watson; *Hunterdon*, O. H. Sproul; *Mercer*, W. S. Lalor; *Middlesex*, A. C. Hunt; *Monmouth*, J. E. Arrowsmith; *Morris*, J. G. Ryerson; *Passaic*, G. W. Terriberry; *Salem*, C. R. P. Fisher; *Union*, H. H. James; *Warren*, P. F. Hulshizer. Dr. H. H. James, Chairman.

EVENING SESSION.

The Society was called to order by VICE-PRESIDENT STEPHEN WICKES, of Orange.

THE PRESIDENT then delivered

THE ANNUAL ADDRESS,

which considered *The Aavances made in Medicine by Physical Diagnosis*. He gave a description of the different means of physical diagnosis, by whom and when introduced, and their mode of use and value to the diagnostician.

The thanks of the Society were voted to him for the address, and a copy requested for publication in the *Transactions*.

THE REPORT OF THE TREASURER showed the receipt of $1,094.54, and the disbursement of $589.43, leaving a balance on hand of $505.11; $2,100 are invested in U. S. Bonds. The Treasurer, Dr. W. W. Phillips, recommended the assessment for the year to be laid at $1.50 per capita.

The report was referred to Committee on Treasurer's Account.

The Committee subsequently reported as follows:

The Committee to whom was referred the report of the Treasurer, would respectfully represent that they have examined so much of his accounts as the absence of his books will admit, and find the balance-sheet presented correct. The Treasurer states that he has in his possession $2,100 in U. S. four per cent. bonds, deposited in Trenton. Your Committee would recommend that the Treasurer be required to give bonds to the amount of five thousand dollars for the faithful performance of his duty,

The Committee was continued, and instructed to carry out its recommendations.

DR. H. H. JAMES, of Rahway, presented the report of the Committee on

WHEN AND OF WHOM RELIABLE VACCINE VIRUS MAY BE OBTAINED,

in which he spoke of the difficulty of procuring good vaccine lymph, and especially of the unreliable virus which has been thrust on the professional community by the vaccine farms, vaccine companies, etc. The author believes that perfectly reliable virus may be obtained from Dr. Henry A. Martin & Son, Boston; Dr. Frank P. Foster, New York; Board of Health, Mott Street, New York.

DR. WRIGHTSON, of Newark, introduced the following:

Resolved, That a committee be appointed by this Society to confer with members of the State Legislature in reference to the enactment of a law by the State Legislature, which will provide for furnishing the medical profession in this State with pure bovine virus free.

The motion was lost.

WEDNESDAY, JUNE 13TH, SECOND DAY.

The Society was called to order by the President.

CONFERRING THE DEGREE OF M.D.

P. N. Jacobus, of Sussex, having presented an application for the degree of M.D., which was in accord with the by-laws, and a thesis, the subject of which was "Specialism and Fashion in Medicine," which was acceptable to the Society, it was voted that the degree be conferred, and the Secretary was instructed to issue a diploma to him.

DR. GEORGE BAYLIS, of Orange, read an essay on *Causes of Melancholia*.

The following were elected

OFFICERS FOR 1884:

President.—Stephen Wickes, of Orange.

Vice-Presidents.—P. C. Barker, of Morristown, Joseph Parrish, of Burlington, and C. J. Kipp, of Newark.

Corresponding Secretary.—William Elmer, Jr., of Trenton.

Recording Secretary.—William Pierson, of Orange.

Treasurer.—W. W. L. Phillips, of Trenton.

Standing Committee.—T. J. Smith, of Bridgeton; Samuel S. Clark, of Belvidere; E. J. Marsh, of Paterson.

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DR. JOSEPH PARRISH, of Burlington, read a very interesting and instructive essay on

SOME PROBLEMS IN INSANITY.

He recommended medical inspection of county poorhouses, and the appointment of a lunacy commission, and referred to the increasing number of semi-insane people in the State, a large neurasthenic class which is in every physician's range of observation, and laid special stress upon the necessity of intermediate homes for such a class, where also convalescents may be placed as a preparation for a normal home-life. He urged the study of chronic cases, and believed that many such cases are susceptible of improvement. Many such have been under his own care. He related several such chronic cases, and read extracts from correspondence abroad confirming the views he had presented. The following resolutions were then unanimously adopted:

Whereas, The condition of the insane poor in the several county houses of the State is such as to warrant investigation by this Society, it is therefore

Resolved, That the President appoint a Committee on Lunacy, whose duty it shall be to visit the asylums and poorhouses in the several counties as often as may be suitable, and in a friendly and unofficial manner acquaint themselves with the condition of the insane, and report to this Society at its next meeting.

Resolved, That it is the opinion of this Society that a lunacy commission should be appointed by the State authorities as a means of protecting the pauper insane especially, and of improving the general condition of the almshouses of the State.

The following were appointed as members of the Committee: Joseph Parrish, of Burlington; E. J. Marsh, of Paterson; F. Gauntt, of Burlington; T. W. Oakey, of Elizabeth; William Pierson, of Orange.

HONORARY MEMBERS.

Dr. Thomas Addis Emmet, and Dr. Isaac E. Taylor, of New York, were proposed for honorary membership. The nominations, as required by the by-laws, were referred to the Committee on Honorary Membership, to report at the next annual meeting.

THE COMMITTEE ON PRIZE ESSAY

reported that no essays had been presented.

THE ARMY MEDICAL MUSEUM AND LIBRARY.

On the motion of Dr. E. M. Hunt, of Metuchen, the following were adopted:

Whereas, It is the opinion of the Medical Society of New Jersey, that the Army Medical Museum and the Library of the Surgeon-General's Office at Washington, D. C., have been largely instrumental in the advancement of sound professional and scientific knowledge, and that they give promise of still greater usefulness in the future; and

Whereas, It is learned with regret that both these collections are in great jeopardy from fire or accident through the insecurity and unsuitableness of the buildings, in which they are stored; it is

Resolved, That Congress at the coming session be respectfully urged to provide suitable indestructible quarters for these invaluable treasures, to secure them against any possible contingency of loss or damage.

Resolved, That it is the sense of this meeting, that the management of these national collections have been eminently successful in the past, and that any change of administration would not only be injurious to these interests, but would cast an undeserved stigma upon the Office of the Surgeon-General of the Army.

Resolved, That Congress be petitioned to provide suitable annual appropriations for the increase and preservation of the Museum and Library, and also for carrying on the invaluable Index Catalogue of the Library of the Surgeon-General's Office.

Drs. E. M. Hunt, B. A. Watson, and Wm. Wolverton, were appointed a committee to carry out the recommendation and the resolutions.

A paper

ON THE MANAGEMENT OF CASES OF IRITIS

was read by DR. C. J. KIPP, of Newark, of which the following is a brief abstract:

In the treatment of all cases of iritis, of whatever origin, the first indication is to secure dilatation of the pupil in order to prevent the formation of posterior synechiæ. For this purpose various mydriatics are used, the most reliable of which is the sulphate of atropine. In fresh cases five or six instillations of a few drops of a one per cent. solution of atropine, made at intervals of five minutes, will generally suffice to break up any adhesions that may already have formed, and produce full dilatation in the course of a few hours. If the atropine makes but little impression on the pupil, six to eight leeches should be applied to the temple. If leeches are contra-indicated a brisk cathartic will sometimes have the same effect. In some cases the action of atropine becomes developed after a Turkish bath. Warm fomentations to lids are of much service in all cases. In all severe cases the patient should be put to bed or at least kept in a darkened room until the severity of the disease is broken. After dilatation of the pupil is secured it should be maintained until all irritation has subsided. If the remedies already mentioned fail to produce a large pupil, mercurials should be given either by inunction or by the mouth. Salivation must be avoided. In some cases the muriate of pilocarpine will answer as well. Of late, he has been able to get along without mercury in most of his cases in which there were not marked symptoms of secondary syphilis. For the relief of the pain morphine is to be given in sufficient quantity to procure sleep at night. The hydrate of chloral will answer only in mild cases. In some cases, the repeated application of leeches to the temple will give more relief than anything else. The salicylates are also of much service, especially if symptoms of rheumatism are present. In other cases quinine will be of benefit. Paracentesis of the anterior chamber will give relief if the pain is due to increased tension of the globe, a symptom not at all uncommon in the so-called serous iritis. As long as the eye is at all irritable all close work should be strictly prohibited even if one eye only is affected, and in order to guard against relapses as much as possible only a very cautious use of the eye should be permitted for some months afterwards. If after the iritis has passed away, the pupil is excluded, that is, the entire pupillary margin fastened to the lens, an iridectomy should be made as soon as practicable. This operation is also recommended in cases in which the relapses are thought to be due to numerous and broad adhesions, although it does not always prevent relapses.

DR. E. C. MANN, of New York, read a paper entitled the

PATHOLOGY OF INEBRIETY,

in which he urged the importance of its early recognition and repression in its incipient stages. Inebriety is a disease where we have a most varied grouping of abnormal phenomena, traceable to altered action in the nervous system, and having for a starting-point some perverted functioning of one or more nerve-centres. It is a disease in which the victims are more or less irresponsible, as are the insane. It has a

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curable, prodromic stage, a stage marked by various neurasthenic symptoms, which should be regarded as the danger-signal of active dipsomania not far off, although the irresistable craving for alcohol which constitutes the morbid condition of inebriety may not yet have been actively displayed. Electricity as central galvanization, and cerebral electrization, cod-liver oil with phosphates, etc., are indicated. Among the predisposing causes are heredity, the exigencies of American life, syphilis, the inheritance of a neurasthenic constitution. The fully developed disease exhibits great nervous irritability and restlessness, and there exists a departure from the healthy structure of the nervous apparatus, and it is this abnormal condition of the central nervous system demanding stimulants that constitutes the disease.

DR. DAVID WARMAN, of Trenton read a paper entitled

PROFESSIONAL FEES AND PROFESSIONAL HONOR,

in which the profession were urged to show their own respect for their calling by demanding from their patients just compensation. Frequent and early collections were advised, and the avoidance of the almost universally misplaced charity common to the profession, a charity that not only does not receive respect, but causes the profession to be held in contempt. Contracts with the various societies and mutual benefit associations were denounced. An appeal was made for a higher professional honor. The author portrayed the annoyances a medical man is exposed to in malpractice suits, and the injury done to true science by false claims of success in obscure cases; also the effect on public opinion of an ununited and quarrelling fraternity.

The Corresponding Secretary, Dr. Elmer, read several letters and telegrams of regrets of their inability to attend the meeting from honorary members and delegates from corresponding societies.

Dr. Leffman, one of the delegates from the Pennsylvania Medical Society, upon his presentation, appropriately responded in behalf of his colleagues.

DR. ELMER, in behalf of the committee appointed at the last annual meeting "to elaborate a plan for the putting into effect the suggestions made by the President in his address in regard to *the curriculum of medical study*," read an exhaustive report, which was referred to the Committee on Publication.

Dr. George T. Welch, of Keyport, was appointed *essayist* for the next annual meeting.

Cape May was agreed upon as the *place for the next annual meeting*, and the second Tuesday in June as the time.

It was voted that the assessment for the year be two dollars per caput.

The following were appointed the *Committee on Prize Essay:* Drs. John W. Snowden, E. M. Hunt, and B. A. Watson.

The subject of the essay to be "The Etiology and Pathology of Septicæmia and Pyæmia."

The following *Committee of Arrangements* for the next annual meeting was appointed: Drs. Harry Clark, H. G. Taylor, E. L. B. Godfrey, J. S. Whitaker, D. A. D. Allen, and H. Elmer.

STATE MEDICAL SOCIETY OF ARKANSAS.

Eighth Annual Session, held at Little Rock, May 30 and 31, 1883.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, MAY 30TH, FIRST DAY.

THE State Medical Society of Arkansas convened at 11 A.M., in the Hall of the House of Representatives, and was called to order by DR. CLAIBOURNE WATKINS, *Chairman of the Committee on Credentials*, who then introduced DR. J. H. SOUTHALL, PRESIDENT of the Society, who delivered the address of welcome: DR. J. H. SOUTHALL then delivered the

ANNUAL ADDRESS,

which was listended to with the closest attention.

The subjects discussed were: Organization and Perpetuation of County Medical Societies; Medical Legislation; The Relation of the Profession to Society and the Government; and Medical Education.

The Committee on Credentials reported the registration of thirty-two delegates and twenty permanent members.

The report of the Committee on Applications for Membership, showed that there were twenty-two applicants for membership in the Society.

AFTERNOON SESSION.

The Society was called to order at 2 P.M., by DR. TURNER, VICE-PRESIDENT.

DR. KELLER moved that the applicants against whom there were no protests be voted for, and the others be referred to the Judicial Council without debate. Adopted.

The following named physicians were balloted for and elected

PERMANENT MEMBERS

of the Society: Drs. J. J. Robertson, E. R. Dibrell, D. C. Carroll, S. M. Carrigan, H. L. B'Shers, J. B. Thompson, R. B. King, Leo E. Bennett, James A. Seaver, T. B. Hodges, L. L. Bond, F. G. McGavock, M. C. Weaver, R. C. Prewitt, C. C. Forbes, W. B. Barner, J. C. Wallis, A. P. George, J. W. Allen, A. J. Pulliam, J. M. Jenks, Chester Jennings.

Drs. J. A. Dibrell, Jr., A. N. Carrigan, W. W. Hipolite, Thomas W. Hurley, were appointed to fill vacancies upon the Judicial Council.

DR. J. E. BENNETT presented a paper on the *Radical Cure of Hernia*, with cases. He also read a paper entitled, *Traumatic Tetanus Successfully Treated by Fowler's Solution of Arsenic.*

DR. G. W. HUDSON, of Camden, read a paper on *Skin-grafting.*

DR. DIBRELL submitted an interesting paper on *A Case of Strangulated Inguinal Hernia in a Cryptorchid*, from lifting a heavy weight.

DR. R. G. JENNINGS read a paper entitled, *Ligation of the External Iliac Artery for Traumatic Aneurism of the Femoral.*

DR. C. S. KIRKSCEY read a volunteer paper entitled, *A Case of Osteo-sarcoma*, which terminated fatally.

DR. J. E. BENNETT presented a paper on *Radical Cure of Hernia on the Heatonian Plan*, which was read.

DR. KIRBY, of Harrison, read a volunteer paper entitled, *Notes of a Case of Placenta Prævia.*

EVENING SESSION.

The Society was called to order at 8.30 P.M. by the President.

THE SECRETARY read a letter from Dr. B. M. Hughes, of Eureka Springs, requesting his reinstatement in the Society. He had been expelled from the Washington County Society, which action was confirmed by the State Society at the last meeting. He had been guilty of publishing, in the secular press, reports of cures effected by himself with the mineral waters of the Springs, in violation of the Code of Ethics of the Society, and hence his expulsion. The communication was referred to the Judicial Council.

DR. E. CROSS, Chairman of the Committee on Gynæcology, read his report.

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DR. J. T. JELKS read a paper on *Laceration of the Perineum*. He called attention to its danger and frequency. He showed the necessity of recognizing its presence, and explained the best processes for its treatment.

DR. W. H. HAWKINS, of Texarkana, read a paper upon *Puerperal Convulsions*.

DR. CARRIGAN read a short and interesting paper upon the same subject.

A paper by DR. DALE, upon an interesting experience in gynæcology, was read by Dr. Dibrell.

THURSDAY, MAY 31ST, SECOND DAY.

MORNING SESSION.

The Society was called to order at 9.30 o'clock.

The SECRETARY then announced the *Nominating Committee*.

The SECRETARY then read the following resolution, which had been introduced at the last meeting by Dr. Turner:

"*Resolved*, That section III of the constitution be so amended as to allow permanent members living in counties where there are no local societies, to have a voice in the Society, as well as delegates from subordinate societies."

DR. TURNER spoke at length in favor of the resolution.

DR. GIBSON opposed it, and gave many reasons for its rejection.

DR. KELLER thought that the resolution was right and proper.

It was opposed by Drs. Cross, Jennings, and Lenow.

DR. MCGAYOCK moved that the resolution be so amended as to allow one permanent member living in counties where there are not more than three graduates.

The motion to amend was adopted.

The amendment as amended was lost.

DR. HURLEY, Chairman of the Committee on Medical Education, submitted the report of the committee.

DR. JENNINGS, Chairman of the Committee on Medical Legislation, read the report of his committee.

DR. GIBSON, *ex officio* Chairman of the Committee on Publication, read the committee's report.

DR. HIPOLITE read the report of the Board of Visitors to the *Arkansas Industrial University*, which was received.

AFTERNOON SESSION.

The Society was called to order at 2 o'clock by VICE-PRESIDENT TURNER.

The Nominating Committee reported the following as

OFFICERS FOR THE ENSUING YEAR:

President.—J. M. Keller, of Garland County.

Vice-Presidents.—G. W. Hudson, of Ouachite County; J. M. Carrigan, of Hempstead County; J. F. Blackburn, of Franklin County; D. S. Mills, of Jefferson County.

Secretary.—L. P. Gibson, of Pulaski County.

Assistant Secretary.—E. Meek, of Pulaski County.

Treasurer.—A. L. Breysacher, of Pulaski County.

Librarian.—John Waters, of Pulaski County.

Little Rock was decided upon as the

NEXT PLACE OF MEETING,

the time to be the Wednesday preceding the meeting of the American Medical Association in 1884.

DR. Z. ORTO, Chairman of the Committee on State Medicine, then read the report of the committee.

On motion, the reading of the report of the Committee on Necrology was omitted, and the same ordered to be prepared for publication.

SECRETARY L. P. GIBSON submitted his report, which was approved.

The Report of the Treasurer, DR. A. L. BREYSACHER, was submitted.

The report of DR. JOHN WATERS, Librarian, was also received.

The tender of the resignation of DR. PRICE was read and received.

The following resolution, introduced by Dr. J. E. Bennett, was then read by the Secretary:

Resolved, That a physician visiting the patient of a brother practitioner in an emergency should under no condition assume control of the case, except to meet the emergency, and that where circumstances arise where there is a doubt as to the proper course to be pursued, the physician should let the instincts of the gentleman be his guide, having in view alike his own honor and that of his profession.

DR. HAWKINS moved that the motion be laid on the table. Carried.

DR. CROSS then moved a reconsideration, which was carried.

DR. BENNETT moved the resolution be referred to the Judicial Council.

DR. HAWKINS considered that all contained in the resolution was covered by the Code of Ethics, and therefore he thought its discussion unnecessary.

DR. DUVAL contended that though the resolution might be covered in spirit by the Code of Ethics, it was not in letter, and he thought it a proper one.

The motion to refer prevailed.

DR. CROSS moved: *Be it resolved*, that Section 1, Article 9, in the Constitution, be so amended as to provide for a Standing Committee on Obstetrics. Laid over for one year.

Dr. Orto's resolution of the morning session was called up.

DR. BENNETT moved that it be referred to the Judicial Council.

On motion by DR. GIBSON, this motion was laid on the table.

Dr. Orto's resolution was then adopted.

THE CODE OF ETHICS.

DR. KELLER offered the following resolution:

Resolved, That the State Medical Society of Arkansas not only heartily condemns the effort of any local or State body of medical men to break down or destroy the Code of Ethics of the American Medical Association, but pledges itself to encourage no medical school or college whose professors, one or more, indorse or favor such effort.

The resolution was unanimously adopted.

DR. MILLS moved a reconsideration of the vote by which the resolution to amend the constitution was lost this morning. Carried.

DR. FOLSOM'S motion to amend the resolution by substituting "permanent members" for "graduates," was also carried.

DR. MCGAVOCK moved the adoption of the amendment as amended. Carried.

DR. HAWKINS moved that Dr. L. P. Gibson, as Secretary, be allowed an honorarium of $100. Carried.

DR. BRYSACHER moved to amend the constitution by decreasing the annual dues from $5 to $3. The motion went over for one year.

Dr. McGavock spoke in encouragement of the election to the Legislature of such delegates as would sustain a liberal medical law. He moved the President appoint a committee of five to address the medical men of the State and urge the importance of medical legislation. Carried.

Dr. Hipolite moved that Dr. Southall be appointed chairman of the committee. Carried.

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On motion of Dr. Gibson, further consideration of the matter was postponed until after adjournment.

DR. BENNET then read a paper on *Diabetes Mellitus, with Cases.*

DR. T. E. MURRELL next read a paper entitled *Some Observations on Hydrobromate of Homatropine and on Jequirity.*

DR. W. W. HIPOLITE read a paper on the *Modus Operandi of Zymotic Influences.*

DR. G. B. MALONE read a paper on *The Influence of the Mind.*

DR. EDWIN BENTLY then presented a paper on *Observations on Concussion of the Spine from Falls, Blows, and Collision.*

DR. JELKS read a paper on *Hydrophobia and Laceration of the Cervix Uteri*, and DR. C. L. KIRK a *Report of a Case of Ascites.*

DR. SOUTHALL, the retiring PRESIDENT, in a few brief remarks, thanked the members for their universal kindness and appreciation of his efforts, and recommended their new officer to their kindest consideration.

DR. KELLER, in assuming the chair, said that owing to the lateness of the hour, he would make no long speech, but merely bow his thanks for this honor conferred upon him—the greatest honor of his life.

On motion, the Convention then adjourned.

In the evening a ball and banquet was tendered the Society by the local physicians.

NEW INVENTIONS.

A HEAD SUPPORT FOR THE LARYNGOSCOPIC MIRROR.

BY JULIAN J. CHISOLM, M.D.,

PROFESSOR OF EYE AND EAR DISEASES IN THE UNIVERSITY OF MARYLAND.

THE elastic rubber head-band, to which the laryngoscopic mirror is usually attached, is so very uncomfortable to me, when strapped around the head, that I never put it on without wishing that some one had devised a more convenient method for holding the reflector. For office work, Tobold's apparatus, with condensor and mirror attached, is all that one can desire, when gaslight is used. It is when a daylight

examination is made, or when consultations are required at the residences of patients, that one is compelled to make use of some portable device for holding the reflector, especially when both hands are needed for the manipulation of instruments. At such times, the elastic rubber head-strap has heretofore been the simplest form of support, but has many drawbacks, among which will be recognized especially the head constriction requisite for holding the mirror with the necessary degree of steadiness. I also find the mirror interfering materially with my eyeglasses, without which I cannot see clearly at short range. I have tried at sundry times to escape these annoyances by having the reflector attached to heavy spectacle frames, but with no success.

Some time since, I requested Mr. Willms, surgical instrument-maker of Baltimore, to prepare for me a broad steel band to run over the crest of the head from forehead to occiput, to one end of which the mirror would be secured. This steel band is about twelve inches long and one and a half broad. At either extremity is a crossbar of metal, well padded, three inches by one and a half inch. They make a firm support upon the head, and enable the spring to hold the mirror very securely. To the front of the broad spring are the nose supports and universal joint to which the mirror is attached. To render spectacles unnecessary, a small revolving wheel, containing four lenses, is secured to the back of the mirror. They are thirty-six, twenty, and ten-inch convex, with fifteen-inch concave. This combination of lenses can be thrown out of position, so as to leave the opening in the centre of the mirror free for those who need no aid in seeing.

This apparatus, when completed, with its three and a half-inch mirror, works very satisfactorily. It is rather odd that so simple a device had not long since been introduced. No one trying the metal spring, with its easy adjustment and comfortable wear, will ever bind again the head with the elastic rubber-band. The spring mirror-supporter can be put on the head with the greatest facility; will fit any head, and, with the lenses attached to the back of the mirror, as with the ophthalmoscope, will give clear vision to any eye with defective focusing.

A glance at the accompanying wood-cut will explain the great advantages which this simple apparatus exhibits over any other heretofore used by specialists for ear, nose, or throat explorations.

CORRESPONDENCE.

FRONTAL ELECTRIC PHOTOPHORE.

To the Editor of THE MEDICAL NEWS.

SIR: In the No. of your valuable journal for May 19th I notice a short account of a new instrument called by the long title of Frontal Electric Photopore, "recently invented" in France, for the purpose of illuminating the cavities of the mouth and nose by electricity. The same idea occurred to me some time ago, and last fall and winter I experimented with different lamps and batteries, which experiments were highly satisfactory, so that I inserted a short description of the apparatus in the second edition of my book on *Diseases of the Throat and Nose*, recently published. The form most convenient and satisfactory consisted of a small incandescent lamp, which was mounted on a separate arm attached to the head-band a little to one side and in front of the head reflector. The connecting wires were carried from the lamp along the hand to the back of the head, and from there down to the battery, thus being out of harm's way. The current was obtained from either a storage battery or from a bichromate of potash battery, the elements of which were combined for quantity. The light thus obtained was somewhat whiter than gas-light and of considerable penetrating power, and I found that the use of this electric head-light was far less fatiguing than when the head-mirror is used to reflect the light from a stationary gas-flame, because in the former case the light is always thrown forward in the direction of the axes of the eyes, and consequently the rays can be directed to any point without reference to position of the head.

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I also used a small arc light, which on account of its whiteness and penetration would be preferable to the incandescent lamps, if a lamp could be made small enough to be easily managed. This I found, however, very difficult, and could not obtain an apparatus suited for the purpose, from any of the manufacturers, who make only lamps of 2000-candle power and upward, while 40 to 60-candle power is all that is desirable for laryngoscopic purposes.

Very truly yours,

C. SEILER, M.D.

PHILADELPHIA, June 20, 1883.

NEWS ITEMS.

BROOKLYN.

(*From our Special Correspondent.*)

THE LONG ISLAND COLLEGE HOSPITAL held its annual commencement last Tuesday at the Academy of Music, Andros P. Chesley being the valedictorian. The class of fifty-one graduates was passed out of sixty-five candidates. The address to the class was delivered by Chas. H. Hall, D.D. The Academy of Music was filled to the utmost by the friends of the graduating class and of the College.

A HOSPITAL FOR CONTAGIOUS DISEASES.—There was some indication that a contagious disease hospital would be inaugurated in Brooklyn by the present Board of Estimate. That Board showed its disposition in regard to this measure of reform by putting $5000 in the budget for the purpose mentioned. But a difficulty has been discovered in the law, which fails to give authority to the Board of Health or any other municipal body to construct or carry on an institution of that kind.

THE VACANT CORONERSHIP.—The recent death of Coroner John T. Parker throws the whole of the inquests of Kings County upon one man, Dr. F. Keller, there being only two coroners for the county. The vacancy will soon be filled by appointment by the Governor. One or more physicians are prominently named as the coming appointee.

TORONTO.

(*From our Special Correspondent.*)

THE PROPOSED MEDICAL COLLEGE FOR WOMEN has been duly organized, and the first session will open on the 1st of October next. The following form the Faculty as given in the announcement just issued:

Dr. M. Barrett, President and Lecturer on Institutes of Medicine; Dr. George Wright, Lecturer on Practice of Medicine; Dr. J. H. Cameron, Lecturer on Surgery; Dr. A. H. Wright, Obstetrics; Dr. A. McPhedran, Materia Medica and Therapeutics; Dr. J. T. Duncan, Anatomy; Dr. R. A. Reeve, Diseases of Eye and Ear; Dr. R. B. Nevitt, Sanitary Science; Dr. F. Kraus, Medical Jurisprudence; Dr. Augusta Stowe-Gullen, Demonstrator in Anatomy; A. R. Pyne, Esq., Lecturer in Chemistry.

The college is receiving the cordial support of the public, and many will contribute liberally to its endowment. It is worthy of remark that Dr. Stowe-Gullen is the only woman who has obtained a degree in medicine in Canada. She completed a full course of four years in Toronto, and graduated at the University of Victoria last month.

THE TORONTO MEDICAL SOCIETY.—At the annual meeting of the Toronto Medical Society held in May, Dr. J. E. Graham was elected President, and Drs. Nevitt and Machell Vice-presidents, for the ensuing year.

LONDON.

(*From our Special Correspondent.*)

THE MEDICAL SOCIETIES.—London is now at its fullest, and all the festivities of the season in full swing. In accordance with this our medical societies have, with one exception, wound up their sessions and adjourned until October. The Clinical Society has had a very active session and in order to get through its work has had to hold an extra meeting.

THE DEBATE ON DIABETES.—The chief feature of the session of the Pathological Society this year has been a debate on diabetes, which demonstrated that nothing whatever is known of the morbid anatomy of that disease which can be regarded as of etiological import. Equally good observers find great changes and no changes at all in the nerve-centres of quite similar cases, and even Dr. Dickerson, the great apostle of capillary hemorrhages and vacuolations in the brain, admits that such changes are not constant. The discussion called forth, however, an able speech from Dr. Ralfe on diabetic coma, which has been already noticed in these columns, and a valuable contribution from Dr. Pavy, showing the importance of the study of this disease from its chemical side.

NEPHRECTOMY.—At the last meeting of the Medical and Chirurgical Society, the subject of nephrectomy was discussed and Dr. Rawdon related a case in which he had excised a kidney for rupture with persistent severe hemorrhage. Cystotomy was subsequently performed for the relief of cystitis set up by retained blood-clot, and it appeared to have been this condition which led to the death from pyelitis and suppurative nephritis. The history of the case left the impression that earlier interference might have been attended with greater success.

THE NEW BUILDINGS OF THE MEDICAL SOCIETY OF LONDON are just completed, and they will be formally opened at the annual soirée, at which the Prince of Wales is expected to be present. The President of the Society for the year is Sir Joseph Fayrer, who accompanied the Prince on his Indian tour.

THE ATTACK UPON THE MEDICAL STAFF OF THE ARMY IN EGYPT.—A very strong feeling has been excited in the profession by the attack Lord Wolseley has made upon the medical officers who accompanied the army in Egypt. Lord Wolseley charges the surgeons with allowing their patients to suffer from want of proper food, beds, curtains, whisks, etc. In brief the reply is, 1st. That the patients did not thus suffer, and here the chief of the staff, who was in constant communication with the doctors, is in direct opposition to Lord Wolseley. 2d. That Lord Wolseley expressed at the time of his visits to the hospitals his hearty and complete approval of the way the sick and wounded were cared for, and even telegraphed home that the medical service was quite satisfactory. 3d. That he did not take any steps at the time to remedy what he now so bitterly complains of. The whole matter has been investigated by a committee, and Sir William MacCormack has done good service on the committee by his advocacy of the just claims of the surgeons. One of Lord Wolseley's complaints is that at one of his visits to the hospital at Tsmailia he could not distinguish the features of the patients, owing to the myriads of flies which had settled on them; but it is openly asserted that this visit was actually paid *at dusk*. Another charge he makes is that on a certain day the

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patients at this hospital were lying on the floor without proper beds, and the actual fact is that there were three hundred patients in the hospital at this time, and of these two hundred and seventy were in beds. The other charges are equally reckless. At first Lord Wolseley's evidence made a great impression upon the public, but now opinion is coming round to see the facts in their true light. It is hoped that the matter will form the subject of a debate in the House of Commons.

THE MEDICAL BILL has passed the House of Lords, but at present has made no progress in the House of Commons, but is confidently expected to become a law before the end of the parliamentary session.

BERLIN.

(*From our Special Correspondent.*)

THE MICROCOCCUS OF ERYSIPELAS.—Modern surgery does not simply deal with mere practical questions, as is shown by the brilliant experiments of Fehleisen, one of Bergmann's assistants, who succeeded in breeding and isolating the micrococci of erysipelas in "pure cultures" (Reinculturen), after Koch's method. Remembering that erysipelas proves very seldom fatal when uncomplicated, and that this disease, on the contrary, sometimes acts as a resorbent in cases of morbid growths, he ventured to inoculate patients of that kind with such micrococci, and saw them taken with real erysipelas promptly after from fifteen to sixteen hours. This is the first instance of the reproduction of a human zymotic disease in other *human* individuals by the inoculation of isolated bacteria, the fatal qualities of the anthrax or tuberculous virus naturally forbidding similar experiments. This instance must convince even the most sceptical minds of the accuracy of the conclusions drawn from that well-known series of experiments inaugurated by R. Koch.

ROBERT KOCH.—There is no Berlin correspondence to-day which could avoid to mention the name of Robert Koch in one way or the other. Therefore, it may be of some interest for western readers to hear that this eminent man does not belong to the medical staff of some great hospital, or to the faculty of some celebrated university, but that he was a simple practitioner and State physician in Wollstein (a small provincial town not far from the Russian frontier) at the very moment when he finished his luminous experiments on the bacillus anthracis and on septicæmia in mice. Struck by the profound ingenuity and exactness of those experiments, Prof. Cohn, the well-known botanist of Breslau, in whose laboratory Koch had executed his first inquiries, made the proposition to him of coming over to this university; he did so, but failed to get an appointment, and, after a half year's waiting, he returned to his former residence. Perchance only a year later (in 1880), Professor Finkelnburg, of Bonn, resigned from the service as a privy councillor to the Imperial Board of Health (Reichsgesundheitamt) in Berlin, and Director Struck offered this post to the provincial practitioner. Once put in his element, Koch developed an admirable activity. He filled his laboratory with all instruments necessary for fruitful scientific researches on practical etiology, and began to work assiduously, but silently, until he went forth with one of the greatest discoveries of the century, viz., the plain and clear fact of a bacillus representing the active principle of the tuberculous process, which fact stands unshaken, even by the somewhat hazardous attacks of Spina, from the Vienna Pathological School. Dr. Koch is now at work gathering all clinical facts which may contribute to confirm his theory of the communicability of phthisis. Besides this, he and his able assistants are fully occupied by a vast series of experiments on the etiology of other infectious diseases; the influence of preventive inoculation, and the efficacy of disinfecting methods. The discovery of a bacillus belonging to farcy, made by Prof. Schütz and Dr. Löffler, may be mentioned as one of the most important results in the first direction.

THE CHENANGO COUNTY (N. Y.) MEDICAL SOCIETY AND THE NEW YORK CODE.—At the semi-annual meeting of the Chenango County Medical Society, held June 12, the following resolutions were unanimously adopted:

Whereas, The Code of Ethics adopted by the American Medical Association, in May of 1847, is the Code that has been adopted by all the State medical societies of the thirty-three different States, one territory, and the District of Columbia, and recognized by the profession generally, throughout the length and breadth of our land, as the Code of Ethics to control and regulate the medical profession in their intercourse with each other, their patients, and the public at large; and,

Whereas, This Code of Medical Ethics having been formerly adopted by our State Medical Society, and a departure made, without consultation with, or the sanction of, this National Association or any of the State medical societies with which we have stood, in mutual professional affiliation; therefore,

Resolved, That we, the members of the Chenango County Medical Society, of the State of New York, do hereby proclaim our adhesion to the Code of Ethics which we have heretofore adopted, being the same as the Code of Ethics of the National Medical Association; and that it is our deliberate and firm conviction and belief that its provisions and demands are the best and wisest known to us for the purpose of maintaining the dignity and honor of the profession, the highest good and welfare of our patients, and the best interests of the public at large.

Resolved, That we deem the American Medical Association as *the* proper source from which should emanate *any radical* change in the Medical Code of Ethics, and *its* authority paramount to *any* other known to us in our profession and as physicians.

Resolved, also, That we condemn the departure already made by our State Society, without consultation with, or approval of, the other State Societies with which we have heretofore, and desire still to be affiliated with; and, also, without the sanction of the National Medical Association, which has been the common bond of union of all the State societies and organized medical associations, as partaking too much of that spirit of secession which was once rife in our country, and which we cannot either, as patriots or physicians, sanction or approve.

THE NEW CODE.—*The New York Medical Journal*, June 2, 1883, says that "The attitude of the profession in the State of New York is one of voluntary renunciation—temporary, it is hoped—of certain present and material advantages for the sake of the ultimate triumph of a principle. New York acts not with an overweening idea of her own importance, but with a full appreciation that, in taking the stand she has taken, she entered upon a course of which every unpleasant consequence was foreseen and accepted as the necessary concomitant of the move she believed herself to be making in the interest of the whole American profession, and with confidence that the purity of her motives and the wisdom of her action will be acknowledged in the end."

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THE MEDICAL SOCIETY OF LOUISVILLE effected a permanent organization last month, by the adoption of a constitution and the election of the following officers:

President.—Dr. Preston B. Scott.

Vice-Presidents.—Drs. L. P. Yandell and Coleman Rogers.

Secretary.—Dr. W. B. Doherty.

DIRECTORY OF MEDICAL SCHOOLS.—We learn that the Illinois State Board of Health is revising its "Directory of the Institutions Granting Medical Diplomas or Licenses in the United States and Canada." Copies of the last issue are being sent to the medical colleges, asking for corrections and additions, at the same time reminding the colleges that the schedule of "Minimum Requirements," as to the good standing of schools in that State, is now in force.

PROPOSED COLLECTIVE INVESTIGATION IN GERMANY.—At the meeting of the Berlin Verein für innere Medicin held on May 21st, Prof. Leyden submitted a report in which, after acknowledging the fact that the idea of collective investigation had been gained from the British Medical Association, are proposed the lines of an inquiry into phthisis on a far more extended plan than that undertaken recently in this country, which it may be remembered was limited solely to the question of contagion. The following subjects were formulated: 1st. The heredity of pulmonary phthisis, to include not only those who have inherited the disease, but also those members of a predisposed family who escape, with an enumeration of the age, sex, and special conditions under which the disease arises. 2d. The contagiousness of phthisis, as borne out by facts bearing on its communicability from husband to wife, and *vice versâ;* its spread in hospitals, workhouses, and prisons, through the medium of foul linen, clothing, dwellings, etc.; and from tuberculous animals, especially through their milk. 3d. The curability of phthisis, in which the histories of the cases are to be especially studied, with reference to diagnosis and the positive evidence of cure. 4th. The passage of genuine pneumonia, characterized by rusty sputum and a typical course, into true phthisis. These questions it is proposed to circulate widely among practitioners and medical societies, which will become centres of observation. The special circumstances of each patient are to be briefly recorded, together with an account of the course of the disease, of the physical examination of the lungs, and, as far as possible, the results of the examination of sputa for elastic fibres and bacilli, the method employed for the detection of the latter being stated. The collected returns will be finally analyzed by a committee. The report was to be discussed at the following meeting of the Society.—*The Lancet*, June 9, 1883.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending June 9, 1883, indicate that pneumonia and inflammation of brain have increased, and that scarlet fever, tonsillitis, and mumps, decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending June 9, and since, at thirteen places; scarlet fever at twenty-one places, and measles at thirty-two places. Smallpox was reported in Lyons Township, Ionia County, June 6, and in Kalamazoo Township, Kalamazoo County, (five cases), June 10.

OÖPHORECTOMY IN AUSTRALIA—DR. ISAIAH DE ZOUCHE, Honorary Physician to the Dunedin Hospital, reports (*Australian Med. Journal*, Februry 15, 1883), with successful result, the first case of Battey's operation performed in the Southern Hemisphere.

HOME HOSPITAL FOR INDIA.—A new European hospital has been opened at Darjeeling, which is intended to serve the purpose of a sanitarium for Calcutta and the civil stations in Bengal, as well as to meet the wants of the Europeans resident in its immediate neighborhood. The institution has met with government support. It was recommended by the late Lieutenant-Governor, Sir Ashley Eden, who sanctioned a grant of 60,000 rupees.

CHAIR OF MEDICAL LOGIC AND JURISPRUDENCE IN THE UNIVERSITY OF ABERDEEN.—DR. OGSTON, Professor of Medical Jurisprudence in the University of Aberdeen, has intimated his intention of resigning the Chair of Medical Logic and Jurisprudence at the next meeting of the University Council. Prof. Ogston has filled this Chair since 1857, and has been a teacher of medical jurisprudence since 1838.

OBITUARY RECORD.—*L'Imparziale* records the death of DR. CONSTANTINO FRANCESCONI, at the advanced age of seventy-three years, and who for forty-eight years has been in the practice of the profession.

———On May 15th, ROBERT DRUITT, M.D., F.R.C.P., F.R.C.S., in the 69th year of his age. He was one of the most active, best, and most widely known of English medical practitioners. Though obliged to retire from active practice in 1867, on account of ill-health, his deservedly popular writings have since that time kept him prominently before the profession. The first edition of the work by which he is best known, the *Surgeon's Vade-Mecum*, appeared in 1839, since which time ten editions have appeared, nearly 40,000 copies have been sold, it having been reprinted in the United States, and translated into several foreign languages. This and the article on "Inflammation" in *Cooper's Dictionary of Surgery* (1872), were his most valuable contributions to medical literature. Besides these he was the author of numerous pamphlets, addresses, and contributions to journals. During the ten years of 1862–1872, he was the editor of the *Medical Times and Gazette*. He was a man of rare scholarship, well-exercised judgment, and a comprehensiveness of mental grasp rarely equalled.

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 11 TO JUNE 18, 1883.

TILTON, HENRY R., *Major and Surgeon.*—Granted leave of absence for four months.—*Par. 7, S. O. 136, A. G. O., June 14, 1883.*

APPEL, AARON H., *First Lieutenant and Assistant Surgeon.*—Relieved from duty in the Department of Dakota, and assigned to duty in the Department of the East.—*Par. 3, S. O. 130, A. G. O., June 7, 1883.*

POWELL, JUNIUS L., *First Lieutenant and Assistant Surgeon.*—Relieved from duty in the Department of Texas, and assigned to duty in the Department of the East.—*Par. 3, S. O. 130, A. G. O., June 7, 1883.*

RICHARD, CHARLES, *First Lieutenant and Assistant Surgeon.*—Relieved from duty in the Department of Dakota, and assigned to duty in the Department of the East.—*Par. 3, S. O. 130, A. G. O., June 7, 1883.*

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*

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THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLII. SATURDAY, JUNE 30, 1883. No. 26.

ORIGINAL ARTICLES.

ON A METHOD OF POST-MORTEM EXAMINATION OF THE THORACIC AND ABDOMINAL VISCERA

THROUGH VAGINA, PERINEUM, AND RECTUM, AND WITHOUT INCISION OF THE ABDOMINAL PARIETES.

BY HOWARD A. KELLY, M.D.,

RESIDENT PHYSICIAN AT THE EPISCOPAL HOSPITAL, PHILADELPHIA.

IT is often a source of great disappointment to physicians to be unable to secure autopsies in obscure cases, on account of the unwillingness of relations and friends to permit any "mutilation" of the body.

In a large proportion of such cases the difficulty may be met, and a satisfactory autopsy secured by the method described in this paper, which I have now practised in five cases.

A post-mortem was very desirable in the case of a powerful Irishman aged thirty-two years, who died in the Episcopal Hospital of right apex pneumonia. His friends, however, were of that class who never consent to any disturbance of the remains for purposes medical or scientific, so I could only make the requisite examination on condition that I should not make any visible mutilation of the body.

The rigor mortis was extreme, rendering it impossible to flex the legs into the lithotomy position with the help of a strong assistant, so they were drawn apart to an angle of about sixty degrees and held in an elevated posture by bandaging to a long gas-pipe over the table.

Drawing the scrotum up, I made an incision from the perineo-scrotal junction to the margin of the anus and down to the bulb. Then cutting around this, and carrying the knife through the subjacent tissue up to the pelvic fascia underlying the vesico-rectal pouch, without injuring either bladder or rectum, the left hand was forced in, and gradually worked up through the pelvic into the abdominal cavity, between the parietal peritoneum and the recti muscles.

Breaking through the peritoneum, the hand was immediately invested on all sides by intestines, which clung to it, fitting like a tight glove, and following every movement with an indescribable sensation of suction, most impressively demonstrating the compact relations and mutual adaptability of the viscera.

Pushing the arm, bared to the shoulder, steadily upwards the free border of the liver was reached, and that organ depressed. An unsuccessful attempt was made to perforate the diaphragm with the fingers. The arm was withdrawn, and again introduced carrying up a scalpel with its blade flat against the index finger. The diaphragm nicked and the knife withdrawn, a large rent was easily made, and the hand passed into the right pleural cavity. The condition of the whole lung was ascertained by touch. The lower lobe was soft and crepitant. Some large, fatty-looking, infiltrated shreds of lymph were torn from its pleural surface and removed. The upper lobe was solid and denser than the friable liver. Adhesions similar to those below existed everywhere over the apex, but were readily detached, and masses of the same kind of lymph brought down.

The whole right lung was dragged partly into the abdomen, when the knife was again needed to sever the bronchus and the vessels at its root, after which it was removed from the body in two perfect parts. The lower lobe coming first, slipped down into and out of the pelvis without any trouble.

The consolidated upper lobe offered considerable resistance at the superior pelvic strait. It finally engaged and was slowly expelled intact by combined traction through the perineal incision and expression through the lax abdominal walls. It fell with a thud to the floor, looking more like a liver as it lay, of a dark-red color and convexity up.

On section it presented the appearances characteristic of pneumonic tissue passing from the second to the third stage.

The right kidney was removed, and found to be enlarged and greatly congested.

Upon the completion of the autopsy some wads of oakum were pushed up into the abdominal cavity, and the perineal incision carefully closed by sutures, and upon returning the body to its proper position not the slightest trace of the examination remained visible.

This man was five feet nine inches in height, and measured twenty-nine inches from top of sternum to perineum over the surface of the body.

The difficulties encountered were probably as great as any to be met ordinarily in removing thoracic viscera through the pelvis. With my hand in the cavity I could easily touch the first intercostal spaces and examine the whole interior of the chest.

The heart can be removed in the same way, and if necessary a short-bladed, long-shanked knife can be introduced subcutaneously to divide the great vessels at its base.

Of the abdominal viscera, the intestines, spleen, pancreas, and kidneys can be taken away without difficulty, the liver must ordinarily be divided.

My hand when squeezed up, with the fingers elongated, measures seven and a half inches in circumference, my forearm eight and a half, and the arm nine inches. It would hardly be possible for an arm exceeding these measurements by two inches to make a post-mortem on an average subject in in this manner. The arm is frequently obliged to rest, temporarily paralyzed by the constrained posi-

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tion, and by the pressure made on the muscles by the sharp angle at the superior pelvic strait, and the strong suction made by all the surrounding structures when traction is made on any viscus.

This last difficulty is a serious one, and it would be much better to obviate it by making a puncture and introducing a small tube to allow free access of air.

This method of securing an autopsy can be practised with slight modification and to still greater advantage, in regard to neatness and perfect concealment, upon the female, as in the following case:

M. O'H., a fine-looking, well-formed Irish girl of twenty-two, living in a large inland town, was brought to the hospital in a condition of extreme anasarca, from which she shortly afterwards died.

On account of the objections urged by her friends, it was determined to make the examination, if possible, without leaving any external trace of it. Bringing the body down to the end of the table and separating the legs as far as possible, the vagina was well syringed, and then, with two fingers of the left hand guiding the knife in the right, an incision was made in the right fornix, through the vaginal wall close to the os uteri. Pushing in the whole left hand and forcing it through the rent, the abdominal cavity was readily reached and the contents examined.

The right kidney, which proved to be a large white kidney weighing eight ounces, was slowly loosened from its attachments and dragged down, frequent pauses being necessary to allow the arm to regain strength. The use of the knife was not necessary in this post-mortem, which was performed before the one above described.

After taking out the left kidney, which presented the same appearance, the vagina was packed with cotton and the body replaced in the coffin, bearing no marks which could suggest a disturbance of the remains.

In the case of G. W., a man twenty years of age, who died in the ward in consequence of large pleuritic effusion and complete splenization of the right lung, and the same condition partially advanced in the left, and marked pericarditis, I made an autopsy of the thoracic viscera per rectum, hoping in this way to make as neat and complete an examination as that in the woman per vaginam.

After giving the gut a thorough washing out, the hand was pushed in, expending considerable force in the gradual dilatation of the sphincters, and the rectal pouch cut through posteriorly. The hand was pushed through this incision and up the hollow and over the promontory of the sacrum into the abdomen. Breaking through the peritoneum, the liver was depressed and the thorax reached and examined as in the first case, and the specimens removed.

The anus was left as large as my arm and gaping, a far more conspicuous object than the closed perineal wound well concealed by the legs and scrotum.

A METHOD PROPOSED TO SECURE CHILDREN AGAINST ATTACKS OF DIPHTHERIA.

BY F. PEYRE PORCHER, M.D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS IN THE MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA, CHARLESTON.

(*Read before the South Carolina Medical Association April, 1883.*)

IN the course of a review published in the *Charleston Medical Journal* many years since, in a letter to a medical gentleman in Philadelphia written in 1878, which appeared in a medical journal in that city, and which was copied in the *Medical Brief* of Missouri, the prescription it contained being also reprinted in *Naphey's Therapeutics*, first edition, I submitted a plan for *preventing* the attacks of this fatal disease. The measures recommended were to be used by those who were well, but exposed to its contagion. My ideas were based upon the fact that diphtheria at its inceptive stage is local, and generally has its seat upon the fauces, which, if acted on and modified by suitable agents, would not offer a nidus for its reception. If micro-organisms are the agents by which diphtheria is caused or propagated, then they will be less likely to effect a lodgement upon surfaces which are subjected to the repeated action of remedies which, whilst uninjurious, may also prove efficient in the destruction of such organisms. I also selected agents well known for their activity and value as tonics, depurants, and antiseptics, which would be adapted to the treatment of the disease should our efforts at prevention prove abortive.

The prescription is as follows, the alcohol being a comparatively recent addition:

℞.—Chlorate of potash, . 1 to 2 drachms.
Mur. tinct. of iron, . 2 to 3 drachms.
Quinine, ... 15 to 20 grains.
Hyposulphite of soda, . 1 to 2 drachms.
Alcohol, ... 1 to 2 ounces.
Water, ... 6 ounces.—M.

S.—A teaspoon to a desertspoonful, in a little water, to be used two or three times a day by those *exposed* to the contagion.

I have directed and used this combination for years past in many families here, by whom it has always been kept; upon my recommendation it has been given elsewhere; and though the testimony must always be negative, I have never known a case of diphtheria to occur where it was employed. The experience of one physician, however, cannot be conclusive upon such a subject, and others must examine into the merits of a claim of such importance.

In the early part of the past year in a communication, made at his request, to my friend, Dr. Thomas F. Wood, editor of the *North Carolina Medical Journal*, I suggested that an addition might be made to the above formula in the case of children much exposed to the dangers of infection; when, for example, the disease existed or had recently occurred in a household. This consisted in the addition to each dose of one-fiftieth to one-seventy-fifth of a grain of the bichloride of mercury, and it was based upon the special power of this agent in its action on micro-organisms as an antiseptic, germicide and parasiticide.

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In the recent paper by Dr. Sternberg (*American Journal of the Medical Sciences*, for April, 1883), entitled "Experiments to Determine the Germicide Value of Certain Therapeutic Agents," the highest rank is given to the bichloride of mercury as a germicide, iodine being next in order; and he states as a confirmatory fact that they are now using it in Vienna as a remedy in diphtheria. Dr. James C. Wilson, of Philadelphia, in an article in the same issue, recommends it as a potent disinfectant for the stools of enteric fever. Dr. R. F. Weir, in an article published in THE MEDICAL NEWS for May 5, 1883, has also referred to the probable value of corrosive sublimate, given internally, in germ diseases. These observations only confirm the value of the suggestion I had long since made with regard to the use of this agent. The employment with similar intent of thymol, salicylic acid, eucalyptus, the oils of gaultheria and mint, or the combination known as "Listerine," may prove useful; but I do not think that principles derived from vegetables will modify mucous surfaces or the blood as powerfully as those from mineral.

If diphtheria be so great a scourge, and the combination I propose be not hurtful but beneficial—even if regarded simply as a tonic and roborant—if there is even a probability that it will prevent attacks, then I hope that the profession will test the efficacy of this formula. If my anticipation becomes realized by the observations of others, then such uninjurious agents, as were advised in the original prescription will not be withheld even from the laity, but will be widely disseminated.

In conclusion, I would add that I have found it serviceable likewise in scarlet fever, and, with the substitution of two or three drachms of supertartrate of potash for the hyposulphite of soda, it has proved in my hands extremely useful in erysipelas, in cellulitis, and diseases of the lymphatic system where there are swelling and puffiness of the subcutaneous cellular tissues.

MEDICAL PROGRESS.

ACTION OF LEAD ON THE STOMACH AND INTESTINES.—RUDOLPH MAIER draws the following conclusions from experiments which he made on this subject: Rabbits and guinea-pigs died from lead-poisoning with doses of grs. iij, daily in from ten to two hundred and twenty-six days. In all of them marked changes were observed in the stomach and intestine. There occurred first, turbidity and fatty degeneration of the gland-cells; second, dilatation of the arteries, venous congestion, hemorrhages and circumscribed brown softening; third, increase in the submucous connective tissue, and sclerotic degeneration of the submucous and mesenteric ganglia. The changes in these latter give rise to lead colic. The changes in the intestine explain the emaciation of the animals. The author considers himself justified in drawing general conclusions regarding chronic lead-poisoning from his experiments, and in defining the condition as parenchymatous degeneration with consequent induration of the connective tissue, similar to chronic phosphorous poisoning, and the symptoms are those of chronic hemorrhagic inflammation, and of a neurosis affecting the most diverse parts of the nervous system.—*Practitioner*, June, 1883.

INSTRUMENT FOR DILATING THE CERVIX BY ELASTIC PRESSURE.—DR. E. T. WILLIAMS recently presented such an instrument to the Boston Society for Medical Improvement. It consists of a soft rubber bulb and flexible tube, a pair of compressing splints, and an elastic rubber band. The bulb, being filled with water, is to be connected with a Barnes' bag or any other water dilator. This being inserted into the cervix, compression is to be applied to the bulb by means of the splints and elastic band, and the instrument left in position to do its own work. Compression can be graduated to fit the circumstances of the case.

The means of connecting the Barnes' bag with the tube from the bulb, is by a screw on the tube, fitted to hold the small nozzle of a Davidson's syringe, which nozzle is to be slipped into the tube of the dilator and securely tied in.

Connection can also be made with Emmet's dilator. The upper part of the instrument being carried beyond the os internum, necessarily bulges into the cavity of the womb, thus forming a sort of head, like the head of a nail, which keeps the dilator from slipping out. No portion of the bag should be permitted to protrude below the external os, for if this happens, bulging will occur at this point and tend to draw the dilator out of the uterus. The same thing happens with sponge tents if not cut off even with the os. The chief defect in Emmet's instrument is the insecurity of the button-clamp by which the bag is secured to the tube, which will not stand the necessary amount of pressure.

He also showed a substitute for Emmet's instrument, consisting of a flexible rubber tube with a perforated wooden spool-shaped tip, and over the tip two rubber finger-cots secured with twine. The inner cot is intact and intended to be filled with water; the outer had a hole for the introduction of a sound, which, being pushed up between them, serves to introduce the instrument into the uterus. This takes the place of the "sleeve" of Emmet's dilator. The sound can be removed when the bags became fully engaged. The objection to all these instruments is their bulk, which prevents their use except when some dilatation exists already.

For the normal non-pregnant os, he showed a metallic intra-uterine syringe tube, with a screw to fit the bulb tube already described. Over the end of the silver tube a rubber cot was tied. A slight swelling of the tube, two and a half inches from the end, would keep the cots from slipping off. Some small clots, made for the speaker, were shown, having a diameter of a quarter, a third, and a half inch. These may be inserted like a sponge tent. The tendency to slip out of the uterus can probably be prevented by packing the vagina or by tying in the syringe tube like a catheter.—*Boston Medical and Surgical Journal*, June 7, 1883.

EFFECT OF DRUGS ON HÆMAGLOBIN.—An investigation on this subject has led Fenoglio to the following results: Preparations of iron have a very unequal action, and during their administration the quantity of hæmaglobin in the blood should always be tested. Lactate of iron and Bland's pills (consisting of oxide of iron and carbonate of potash) are preferable to Bravais' dialyzed iron; but though this preparation is not so powerful as the others, it is by no means without effect. The action of Fowler's solution becomes more powerful the longer it is continued. Notwithstanding the opposition of many authors, Fowler's solution is indicated in anæmia and chlorosis, and all conditions where the hæmaglobin of the blood is diminished, for this preparation both increases the hæmaglobin and improves the appetite and the general appearance.—*Practitioner*, June, 1883.

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THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, JUNE 30, 1883.

BACILLUS NOTES.

IT is evident from recent studies, that methods of treatment have much to do with success or failure in the demonstration of these organisms in tubercular tissues. It will be remembered that both Koch and Ehrlich asserted that tubercle-bacilli are stained by alkaline solutions of certain aniline colors, but that they are impermeable to acids and certain brown colors, as Bismarck-brown and vesuvin, and that therefore they are not stainable by the former and cannot be decolorized by the action of the latter.

Recently, however, not only Spina, but Lichtheim, Ziehl, Finkler, and Eichler have controverted these views. Spina, Lichtheim, and Ziehl have shown that the staining solutions need not necessarily possess an alkaline reaction. Spina, Ziehl, Finkler, and Eichler have shown that nitric acid penetrates the bacilli; and Spina, Finkler, and Eichler have all noted the staining of bacilli by the brown coloring matters.

Recently, at the invitation of Prof. Stricker, Drs. Kaberhel and Matray have repeated Spina's experiments, and have shown that all solutions of methyl-violet and methyl-blue, whether alkaline or acid, stain the bacilli; and have further observed that the stained tubercle-bacilli are decolorized by nitric acid; while Kaberhel has also shown that tubercle-bacilli may be stained in solutions of brown coloring matter, and Matray has treated tubercle-bacilli with a mixture of acidulated solutions of fuchsin and vesuvin, with the effect of staining many of them, although Koch and Ehrlich have denied that staining would take place under such circumstances.

So, also, Dr. Lawrason, of New Orleans, who has been working in Philadelphia upon this subject for some months, has shown that the effect of a too prolonged treatment by nitric acid is to remove all the color from the bacilli and to render many of them invisible. We have recently examined some exquisite examples of sections made by this gentleman, of tuberculosis of the lungs and lymphatic glands, in which aggregations of stained bacilli quite large enough to be seen by the naked eye are present, resolvable by the microscope, aided by an achromatic condenser, into collections of typical *bacilli tuberculosis*. The sections were treated by saturated watery solutions of aniline oil, 100 parts, and saturated alcoholic solution of fuchsin, 11 parts, and then placed in a solution of one-third formic acid and two-thirds water for two hours. The sections were then thoroughly washed in absolute alcohol, cleared up with oil of cloves and mounted. He informs us emphatically that the effect of prolonged immersion in solutions of nitric acid is to decolorize the bacilli and to make them invisible.

Finally, by pursuing Koch's method Dr. Matray has succeeded in staining blue upon a dark ground, rod bacteria, isolated cocci, cocci in pairs and in colonies as well as leptothrix and torula forms of bacteria. These have been found in bronchiectatic sputum, in that of bronchial asthma, and diffuse bronchitis, in the coating of the tongue of non-phthisical individuals, lochia of a non-phthisical lying-in woman, in the sputum of pneumonia, in the stools of typhus patients, and in the fluid expressed from the tissues of a man dead of malignant œdema. He also found from the same sources and localities, except the last, bacilli exactly similar in form and size, grouping, and reactions to the so-called tubercle-bacilli of Koch.

At the conclusion of an article in the *Wiener medizinische Presse* for May 13th, Dr. Arnold Spina justly claims that these facts confirm the conclusions arrived at in his original studies, viz., that other cleft fungi behave precisely towards staining agents as do the bacilli of Koch, while the latter also deport themselves towards staining fluids as other bacteria. Not only this, but they lead us to expect the constant occurrence of bacilli in the organs of the body, and such an assertion is indeed made by Dr. Gärtner, of Vienna, who promises later to publish detailed results.

IN striking contrast with the above, we formulate from the results of a recent study of 380 cases of pulmonary phthisis by Fräntzel (*Deut. med. Wochenschr.*, for April 25th), the following conclusions:

1. Whenever tubercle-bacilli are found in the

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expectoration there must exist tuberculosis of the lungs.

2. On the other hand, where the expectoration from pulmonary disease, nothwithstanding repeated and careful investigations, contains no tubercle bacilli—provided always the sputum is from the lungs and not the upper air-passages—there is no pulmonary tuberculosis, or there are at least no softening foci discharging into the bronchi.

3. The more abundant the bacilli in the sputum, the graver the prognosis.

4. If during the observation of a case extending over a sufficiently long time, the bacilli in the expectoration become sparser and sparser, we may infer at least a cessation of the softening process.

DR. PAUL GUTTMANN has recently (*Deut. med. Wochenschr.*, May 23d) found the *bacillus tuberculosis* in two cases of tubercular ulcer of the soft palate. This rare affection, including tuberculosis of adjacent parts, hard palate, root of the tongue, and pharynx—collectively known as pharyngeal tuberculosis—occurs, in his experience, in about one per cent. of cases of phthisis. Beginning in characteristic pin-head sized miliary tubercles, these quickly caseate in from two to three weeks, and the confluent tubercles break down into tubercular lintel-sized ulcers, which again unite to form somewhat larger ulcers.

The bacilli were found in enormous numbers in the secretion scraped from the surface of the ulcers and treated in the usual manner—in the one instance before the patient's death, and in the second, afterwards. In the latter they were also found in thin sections through the soft palate, but they were not numerous.

Since tuberculosis of the soft palate is always secondary, and only occurs late in phthisis, Guttman is inclined to believe it is the result of inoculation by the bacilli in the expectorated phthisical sputa adhering to the soft parts. Such adhesion and inoculation are of course facilitated by excoriation of the epithelium.

THE ACTION OF REMEDIES ON THE CEREBRAL CORTEX.

ALBERTONI, in vol. 15 of the *Archiv für experimentelle Pathologie und Pharmacologie*, has published the results of a research on the action of medicaments affecting the cortical centres. He has pursued a novel method. Referring to the experiments of Hitzig and Fritsche, of Ferrier, of Nothnagel, and others, who had by electrical excitation mapped out certain motor areas in the cerebral cortex, Albertoni proposed to himself to utilize this method for ascertaining the effects of remedies on the cerebrum. It has been ascertained that on feeble electrical excitation of certain convolutions, muscular movements follow, and that more decided stimulation will induce attacks of a distinctly epileptiform character. Hughlings Jackson had previously shown that irritation of the cortex by a "coarse lesion" caused epileptic seizures. Albertoni proposed to excite, in a similar way, epileptic attacks in animals, and ascertain the effects of remedies in preventing them, or diminishing their violence, if any drugs possess such powers. The research was carried on in Schmiedeberg's laboratory, at Strasbourg, and was limited to bromide of potassium, atropine, and cinchonidine.

The general belief in the value of the bromides as remedies for epileptic and epileptiform seizures is confirmed by Albertoni's experiments. He found that bromide of potassium possesses in a marked degree the power to allay the excitability of the brain, and this effect is the more conspicuous the longer the remedy has been administered and the more decidedly the system is affected by it. Indeed, a condition of the brain is ultimately attained in which no amount of electrical excitation will induce convulsions.

As might have been *a priori* expected, atropine did not exhibit similar properties. It seems to increase rather than lessen the excitability of the cerebrum. It had no power to affect the results of electrical excitation, and did not lessen the action of the weakest current sufficient to induce movements. This result also corresponds to the clinical experience of the medical profession—for belladonna has not proved useful in epilepsy; notwithstanding, Trousseau rated it comparatively high in the days before the bromides were introduced.

ACETONURIA AND DIACETURIA.

RECENT studies have contributed considerably to our knowledge of these processes, which were formerly considered to be peculiar to diabetes, and to cause the so-called diabetic coma. Thus, in a late paper (*Deut. med. Woch.*, May 23d) JACKSCH asserts that the phenomena of diabetic coma, so-called, occur also in carcinoma and the infectious diseases, and are attended by the presence of acetic acid in the blood. Whence the condition of the urine is termed *diaceturia*, in contrast to *acetonuria* a much less dangerous condition which constantly attends high grades of continuous fever. Naturally, also, the term *coma diaceticum* is preferred for the more serious condition to the older *coma diabeticum*.

Jacksch adopts the view of Frerichs, that the state of the blood is due to a zymotic process, the exact nature of which is as yet unknown.

KISSING—A DANGER.

AT first sight, it might be doubted whether this subject belongs to a medical journal. It needs no science to practise it, to enjoy it, or to be annoyed

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by it. It might well be ignored by us, were it not that there is *danger* in it.

The annoyance to children of being urged, and often even compelled, to kiss visitors and strangers is bad enough, but there is also a serious danger in the habit, since it is not a very infrequent source of most loathsome contagion.

One of the commonest secondary results of syphilis is mucous patches in the mouth. Glass-blowers, who pass the glass from mouth to mouth at their trade, frequently suffer from syphilis caught in this way. One of the most terrible cases ever published occurred in this city some years ago, in which over one hundred persons were infected with syphilis by an itinerant tattooer, who moistened his India-ink with his saliva.

Syphilitics who have mucous patches invariably should be warned against kissing others, and especially any member of their families, lest they infect them. Children should not be allowed to put into their mouths toys vended on the streets, and constantly used by the vender and other persons. The danger of infection from using tincups or tumblers in public places is also a real one, though much less so than those above alluded to, since the virus is apt to be washed away. But such cups should always be carefully rinsed before being used.

The same danger exists in diphtheria, and in all cases of this disease the members of the family should not kiss the patient. Neglect of this rule claimed in the late Princess Alice a conspicuous victim, mourned by two kingdoms.

WE note that the itinerant Hale, to whose career in Wheeling, W. Va., we alluded in a recent issue, has been arrested in Toledo, O., on a charge of circulating obscene literature, which appeared in the journal *Health and Home*. He is to be promptly tried, and it is hoped he will be summarily and severely punished. His offences are practically of the same character as those charged against the abortionist Hathaway, who could never have plied his revolting trade in Philadelphia, had there been in Pennsylvania such a registration law as exists in Illinois and West Virginia, and has recently been enacted in the State of Wisconsin.

SOCIETY PROCEEDINGS.

AMERICAN NEUROLOGICAL ASSOCIATION.

Ninth Annual Meeting, held in New York, June 21, 22, and 23, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE ninth annual meeting of the American Neurological Association was held in New York, in the Hall of the Academy of Medicine, on the 20th, 21st, and 22d of June. Sessions were held, on the afternoon and evening of the 20th and 22d, and on the afternoon of the 21st, the evening of that day being set apart to a dinner, given by Dr. Amidon, of New York, to the President, Dr. Edes, and to a reception to the members of the Association by Dr. Morton, at his residence.

WEDNESDAY, JUNE 20TH, FIRST DAY.
AFTERNOON SESSION.

ADDRESS OF THE RETIRING PRESIDENT.

DR. WILLIAM A. HAMMOND, the retiring *President*, in calling the Association to order, referred to the fact that many of the papers read before the Association last year had been reprinted in Europe, and some of them, either in whole or in part, in most of the languages of Europe. He said that great interest was being manifested in neurological medicine in this country, although not so much, perhaps, as the subject merits. He was somewhat at a loss to know why it was that certain other societies devoted to special branches of medicine were largely attended, while this body, working in a field of greater importance than all the others combined, had comparatively small attendance, unless it were that perhaps every one regards himself as something of a neurologist, and that the limits of the subject were not so well defined as the others mentioned. He then introduced the incoming President, Dr. Edes, of Boston.

The PRESIDENT, DR. ROBERT T. EDES, then delivered

THE ANNUAL ADDRESS,

in which he briefly reviewed the progress of neurology during the past year, referring particularly to the better knowledge of analysis as the means of locating disease; much, however, being lacking in essential knowledge of disease, a great deal of so-called knowledge of neurology is merely speculative, and especially with reference to the beginning of nervous diseases.

The PRESIDENT then read a note from Dr. Seguin, of New York, now in Europe, explaining his absence and expressing his interest in the work of the Association.

The minutes of the Association's proceedings of last year being already in printed form and in the hands of the members, their reading was dispensed with.

ELECTION OF MEMBERS.

Upon the favorable report of the Council the following candidates for membership were elected by ballot: Leonard E. Weber, M.D., of New York; G. L. Walton, M.D., of Boston; J. T. Eskridge, M.D., of Philadelphia.

In the absence of Dr. Seguin, Dr. Amidon was elected Secretary *pro tem.*

The report of the Secretary and Treasurer was read and accepted.

NOMINATIONS FOR MEMBERSHIP.

The following were nominated for membership: R. L. Parsons, M.D., of New York; and Charles F. Folsom, M.D., of Boston.

The following were then elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. Isaac Ott, of Easton, Pa.

Vice-President.—Dr. W. R. Birdsall, of New York.

Secretary and Treasurer.—Dr. R. W. Amidon, of New York.

Councillors.—Drs. V. P. Gibney, and W. J. Morton, of New York.

The Secretary was directed to acknowledge with thanks the receipt of a letter and important papers from Dr. W. Becherew, of St. Petersburg.

The President was directed to appoint a committee to draft and present on behalf of the Association a letter of respect to the memory of the late Dr. Beard.

DR. MORTON, of New York, presented

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A CONTRIBUTION TO TRAUMATIC NEURITIS, ILLUSTRATED BY A CASE FOLLOWING DISLOCATION OF THE HUMERUS.

The patient, who came into Dr. Morton's hands in February, 1882, after discharge from the hospital, was presented to the Association by Dr. Morton, and was examined with great interest. The case presented the following features of interest:

1. Danger of injury to the great nerve trunks by dislocation or reduction of dislocation.
2. An instance of ascending neuritis.
3. Presenting in association with neuritis, the rare symptoms of fibrous hyperplasia and neuro-muscular hyper-excitability.

The condition of the patient at date of first examination was as follows: Hand much enlarged, stiff, brawny, and club-like; arm wasted; skin glazed and waxen-like and flaccid; color, mottled purplish-red; arm flabby on palpation, resembling tissues subject to persistent chronic inflammation. Hand continuously cold; joints painful; nails curved, club-shaped, and exhibiting very rapid growth; absence of hairs on the hand.

Dr. Morton gave a detailed statement of the motor and sensory symptoms before and during treatment, and the electrical reactions in both arms to the faradic and galvanic currents; and traced with great minuteness the transfer of motor and sensory changes to the opposite member.

The treatment was by electricity, and severe blistering over the track of the brachial plexus, hot and cold douches, and cod-liver oil. Improvement under treatment had been marked.

The paper cites cases by surgical authors in comparison, and concludes that it is probable that efforts at reduction in difficult cases of dislocation of the head of the humerus into the axilla and the like, have more frequently produced the nerve lesion than the original accident.

Another interesting feature noted in the paper was that the left arm had become affected by an injury originally inflicted upon the axillary plexus, thus demonstrating the ascending nature of the neuritis.

The value of electrical examinations for diagnosis was here clearly shown; since without these examinations the evidence of transfer of trouble to the cord and opposite spinal nerves would have been impossible until much later.

In regard to the fibrous hyperplasia, the reader pointed out that while atrophy of the connective tissue in conjunction with other tissues was common, hypertrophy on the other hand was very rare. In the present instance, the hypertrophies resembled a number of small fibrous tumors situated on the palmar aspects of the phalanges. He had found but one similar case on record, and that by Weir Mitchell.

The condition of neuro-muscular hyper-excitability was tested by various members of the Association. Simple mechanical excitability is sometimes observed following spinal lesions; but in this case the phenomenon is more complicated since, when the muscle is once stimulated so that it contracts, the contraction remains relatively permanent and constitutes therefore a veritable *contracture*. This fact of contracture excited by irritation of motor points now existed in the left as well as in the right (originally injured) side. Would we find an exact parallel to the condition here observed, we must turn to Charcot's description of the condition discovered by him to exist during the lethargic stage of hypnotism and designated by him neuro-muscular hyper-excitability, a term adopted by the writer to indicate the similar phenomenon now, as far as he knew, observed for the first time in traumatism of peripheral nerves. The contracture present was due, not as commonly supposed to the degeneration of the muscle itself, but to the exalted activity of the spinal centre and a consequent reflex. Based on this theory, the pathogeny of the case was clear, viz., an ascending neuritis, a modification of the activity of the spinal nervous centre, and *hence*, neuro-muscular hyper-excitability in both arms.

The appearance of hand and arm at the beginning and during early treatment, was well exhibited by several photographs taken by the author.

Dr. Morton observed in conclusion that it is apparently clearly demonstrated by this case, that the condition of neuro-muscular hyper-excitability is not alone found in the hypnotism of the hysterical, but may exist in ascending neuritis which has reached the spinal centres.

DR. PUTNAM, of Boston, said that the etiology of this case was one that he had observed several times, and certainly was of considerable practical importance, but that even without dislocation, the condition of Dr. Morton's patient might be brought about. He had known two or three cases where the arm was either severely wrenched or thrown into a condition of strong and sudden extension, where the brachial plexus seemed pretty thoroughly disorganized. He had been in the habit of supposing that nerves stood a sudden strain very much less well than a prolonged strain, and that the very moderate degree of stretching which the nerves of the brachial plexus get in hyperextension of the arm, or the strain which some of the nerves of the sacral plexus are subjected to in sudden bending of the body or sudden replacing after bending, may cause them to suffer very severely.

As to the question of neuro-muscular hyper-excitability in the case of this patient, Dr. Putnam thought it opened up one of the very best fields for discussion. In this an examination of the patient undoubtedly obtained very exalted reflex responses, which are practically analogous with the neuro-muscular hyper-excitability of Charcot. The case had been given by Dr. Morton without doubt the only explanation that would cover it.

DR. V. P. GIBNEY, of New York, asked if the hyper-excitability was accounted for in this case in the same way as in compression myelitis, or was it explained by the excitability in the nervous centres in the spinal cord, or both.

DR. CHAS. K. MILLS, of Phila., thought that both explanations might apply. There exists an exalted reflex action where there is an irritated or an excited condition of the gray spinal reflex centres of the cord, and on the other hand the same condition exists where the cerebral inhibitory apparatus is cut off. From the nature of the case both causes are at work.

DR. WILLIAM A. HAMMOND said as to the treatment, that he thought one of the prime elements in the method of effecting cure of neuritis is to insure, as far as possible, absolute quietness to the nerve. In other tissues rest is one of the most essential elements in the cure. To an inflamed retina, for instance, much light is prejudicial. It had been his opinion for several years that the natural stimulus of the nerve is one of the excitants of the inflammation, and tends to keep it up, and that the transmission of it tends to aggravate the inflammation and retard the cure. It was on this account that he had for many years insisted upon absolute rest in the treatment of these cases, and in several instances employed stretching of the nerve.

DR. PUTNAM favored the use of ice continuously, day and night, for several days together, or at any rate for a great many hours together, as of the greatest possible advantage, care being taken to interpose several thicknesses of flannel, to prevent the cold causing irritation.

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Dr. C. L. DANA, of New York, read some

NOTES ON THE USE OF HYDROBROMIC ACID IN NERVOUS AFFECTIONS.

Dr. Dana recited the first employment of hydrobromic acid, in 1875, by Dr. Wade, and since then by other physicians, and the experiments of Dr. Reichert upon the lower animals. It was found to depress the reflex functions of the spinal cord; but its effects upon the brain were not observed. Descriptions of the drug are not to be found in most of the therapeutical text-books, and one author, as late as 1882, states that its real value has not been determined.

It has been used by the profession chiefly with quinine, with a view to lessen cinchonism.

Dr. Dana was led to experiment with this drug in the hope that it would have the beneficial effects of the alkaline bromides in epilepsy, without causing depression and scurvy.

Pure hydrobromic acid contains in 100 parts by weight 99 parts of bromine. One drachm of the pure acid is equal in bromine amount to about 90 grs. bromide of potassium, 75 grs. bromide of sodium, 66 grs. bromide of lithium, 73 grains bromide of calcium, 71 grs. bromide of ammonium. This drug therefore contains more bromine proportionately than any other of the bromine compounds, and is united with an innocuous metal. The average dose of the pure acid, assuming the medicinal and chemical equivalents to be the same, would be 10 to 20 drops.

Dr. Dana has used this drug in a very large number of cases, chiefly epilepsy, alcoholism, congestive headache, malarial headache, spermatorrhœa, vertigo, general nerve-weakness, various forms of neurasthenia, chorea, insomnia, hysteria, post-hemiplegic cerebral (vascular) disturbances, melancholia, etc.

Several cases of epilepsy in which the drug was used are set forth, among them an epileptic youth of 20, who had previously had various treatment since his ninth year; he was having attacks daily, and sometimes several in the day. Under the hydrobromic acid he often went one, two, and three weeks without any fit. The acid was given for six or seven months, in doses of ʒiv to ʒv daily. After a time it began to lose its hold. In three other cases, of milder type, the use of the drug stopped the fits as long as the patients were under Dr. Dana's care. In two other very obstinate cases, suffering both from *grand* and *petit mal*, there was no great benefit; one of the two latter, when put upon very large doses of bromide of soda, did better than upon the acid.

Dr. Dana concludes that, in epilepsy, hydrobromic acid cannot be used as a substitute for the bromides, except in the more controllable cases; yet that it undoubtedly has a controlling influence over the disease; and he does not feel certain that, if given in equivalently large doses, it might not be as efficient as the alkaline salts.

Hydrobromic acid is a good solvent for quinine, but does not prevent cinchonism, according to Dr. Dana's experience.

The best results from the use of the acid were in conditions of nervous irritability, congestive headaches, post-hemiplegic circulatory disturbances, irritable heart, and where a general nervous and vascular sedative is indicated.

Satisfactory sedative results are obtained from two-drachm, or even one-drachm, doses of the officinal dilute solution (ten per cent.). It is agreeable, non-irritating, and will cause no eruption or other symptoms of bromism.

DR. HAMMOND said he could not conceive that hydrobromic acid has any advantage over any one of the haloid or alkaline salts, or that it could act as a substitute. Its influence was much less efficient for the prevention of cinchonism than a small dose of bromide of sodium, combined with a dose of sulphate of quinine, although he was satisfied it had the effect of preventing cinchonism.

DR. J. J. PUTNAM, of Boston, read a paper upon

LEAD-POISONING SIMULATING OTHER FORMS OF DISEASE, AND ON THE DANGER OF MISTAKING BISMUTH FOR LEAD IN THE ANALYSIS OF THE URINE.

He stated that it was not his purpose to attempt an exhaustive description of the various obscure symptoms to which lead-poisoning may give rise.

They are certainly very numerous, and we are probably as yet quite ignorant as to how varied they may be in character. The main point was to urge careful routine examination of the urine in obscure cases. The instances which had come to his own notice, though not many in number, yet formed a considerable proportion of the cases, not clinically characteristic of lead-poisoning, in which he had had the urine examined.

The *first* case had presented a history of extreme anæmia with gradual failure of all the vital functions, and slowly progressive paraplegia.

The patient was a woman, 55 years of age. The whole course was about two years. The first symptoms were "numbness" and pricking of all four extremities, anæmia, and debility. This was followed by very slowly progressive paraplegia of the lower extremities, without localizing symptoms, and apparently of anæmic origin, with which she eventually died. A considerable quantity of lead was found in the urine, and no other cause could be discovered for the symptoms.

The *second* case was one of diffused interstitial myelitis of moderate intensity, with eventual improvement. The diagnosis was rendered somewhat doubtful by the fact that the patient had taken a small quantity of bismuth four weeks previously.

The *third* case (which had occurred in the hospital practice of Dr. F. Minot, of Boston) was one resembling the transient form of poliomyelitis anterior. Under the use of iodide of potassium the patient had greatly improved at the end of six weeks.

The *fourth* case was one with vague cerebral symptoms such as are seen in some forms of dyspepsia, lithæmia, and chronic nephritis. There was much improvement under the use of iodide of potassium.

In none of these cases were any of the distinctive marks of lead poisoning present.

Two other less obscure cases were reported, and two cases previously published by Dr. F. Minot and Dr. S. G. Webber were referred to, in both of which symptoms of latent sclerosis had been present.

Dr. Putnam then spoke of the important fact, first called to his notice by Prof. E. S. Wood, under whom the chemical work of the investigation had been done, that bismuth in the urine would be readily mistaken for lead, and said that he had undertaken experiments on this point.

He had himself taken from thirty to forty-five grains of bismuth daily for two weeks (the urine having been previously tested and found free from lead or bismuth), and had found that traces of bismuth were still to be detected in the urine, by the usual lead tests, as late as four weeks afterwards.

In testing for lead this possible cause of error should be borne in mind; and also the facts that before the examination for either lead or bismuth iodide of potassium should always be given for two or three days, and a large quantity of urine collected.

Discussion upon Dr. Putnam's paper was postponed, the hour being late.

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Dr. Putnam exhibited *A Urinal*, to be used by females who are obliged to keep to a chair and are unable to leave the chair without difficulty.

EVENING SESSION.

DR. J. T. ESKRIDGE, of Philadelphia, gave a detailed account of the history of a man suffering from

GENERAL NEURALGIA.

The case was peculiarly interesting on account of the great difficulty in diagnosis.

The patient, about thirty years old, presented a nervous, irritable appearance. His father had died of some supposed inflammatory spinal trouble; mother still living, but suffering from pain in the abdomen. He had never contracted any venereal disease, and his three children seemed to be well developed and healthy.

In April, 1881, after sleeping in a damp bed one night, he was attacked with severe pain in the lumbar region of his spine. The spinal trouble lasted two months, but during the second month it was complicated by a painful condition of the left sciatic nerve. The pain in the leg could be relieved by firm pressure over the great sciatic nerve as it emerges from the pelvis. Throughout the attack he has been able to continue his work as moulder in an iron foundry, although it was done at the expense of great pain in the spine and affected nerve. In the following October, after having been confined in a hospital several weeks from a traumatic affection of the left ankle, he was again seized for one month by a return of the pain in the cord, and in all of the nerves of the left leg. During the next ten months he suffered more or less, but was able to work. In October, 1882, he remained five weeks in a hospital, suffering from another attack of pain, the lumbar region of the spine and the nerves of the left leg only being affected.

Jan. 15, 1883, he first came under Dr. Eskridge's care in the medical wards of St. Mary's Hospital. At that time he was scarcely able to walk, complained of great pain in the back and left leg, sleep was broken, appetite capricious, and bowels constipated; temperature 100°, pule 92, respiration 24. The spine was very tender on pressure in the dorsal and lumbar regions. All the superficial nerves of the left leg, thigh, and gluteal region were the seats of neuralgic pain. The nerves of the affected region were sensitive to light pressure.

The treatment consisted of rest in bed, blisters, and other counter-irritants over the affected nerves and lower portion of the spinal cord, counter-extension and extension of the left leg by means of pulley and weights, deep injections of morphia and atropia; and internally of ergot, bromides, strychnia, and many other agents used in neuralgia and rheumatism. Chloroform injections increased his suffering. Anti-syphilitic treatment was faithfully employed, but this gave no relief. Nerve stretching was resorted to in March, but only to increase his suffering.

In April, about one month after all active treatment had been abandoned, he began to improve under a mild faradic current.

April 11.—Electro-muscular contractility was well preserved, and about equal on both sides of the body. Electro-sensibility was increased in the left leg and in both arms. Tactile sensibility was decreased and surface temperature lessened over the entire neuralgic areas.

May 22.—Tactile sensibility and surface temperature were nearly equal on both sides of the body.

June 4.—It was noted that electro-sensibility was greater in the right leg than in the left. In the right leg, the faradic current, passing through the electric brush, was felt with a half inch of secondary coil, and in the left it was not observed until one inch of the secondary coil was used. Good faradic contractility was found in the muscles of both legs. On using the galvanic current, no reactions of degeneration were detected. The patellar, cremaster, and iritic reflexes, when investigated, were always found to be normal.

At present, the patient is steadily improving: he has gained in flesh and strength, and is able to do light work and walk comparatively long distances without suffering much pain, except in the coccyx and left popliteal space. The spine is entirely painless, both to pressure and the passage of a comparatively strong faradic current, nothing being done in the way of treatment, besides occasional applications, electricity alternating between the faradic and galvanic currents. During the last week, pustular eruptions have taken place over the superficial nerves of both arms and portions of the chest.

In conclusion, Dr. Eskridge considered the subject of diagnosis, and said: The trouble having commenced in the lumbar region of the cord, after the man had slept, one night, in a damp bed; its spreading to the sciatic nerve; the extension of pain up and involving the greater portion of the spinal cord and all the nerves of the brachial plexus, when taken in connection with the patient's deplorable condition at one time, and with the fact that the part first attacked, the lumbar portion of the cord, was, until a few weeks ago, the seat of great and constant pain, and very sensitive to pressure and the passage of mild faradic current, suggest the inquiry—Has not the case been one of general neuritis following inflammatory trouble of the cord or its membranes, and improved? In favor of general neuralgia he stated:

1. That we have a disease that has extended over a period of more than two years, made up of attacks of pain lasting from two to six months, in a man whose condition and general appearance to-day seem to be as good as they were after the first attack in the year 1881.

2. That several times, by firm pressure over the great sciatic nerve as it emerges from the pelvis, he had succeeded in relieving pain in the left foot and leg.

3. That in inflammatory conditions of the cord of so long duration, reactions of degeneration and other atrophic disorders would probably be found, and improvement, if it should occur, would be slower and less complete than it had been in the case which he had described.

4. That the left leg and right fifth cranial nerve were severely affected, while the left side of the face entirely, and the right leg almost entirely, escaped.

5. That pain was often shooting or stabbing in character, differing from the dull ache of neuritis.

He asked: Could not the case have had a syphilitic origin, and the inflammatory exudation have disappeared, leaving the man in his present condition?

Against this view he thought certain facts militated. When the patient first came under his care he was promptly put upon anti-syphilitic treatment, and notwithstanding the treatment was continued for a number of weeks, he grew worse, instead of better. The patient did not begin to improve until after that plan of treatment had been abandoned more than a month. Further, no anæsthetic zones or areas, such as had been pointed out as occurring in cases of syphilitic neuritis, were observed at any time.

DR. CHARLES K. MILLS, of Philadelphia, then read a paper on

LOCOMOTOR ATAXIA TERMINATING AS GENERAL PARALYSIS OF THE INSANE.

He said that the relation between locomotor ataxia and general paralysis of the insane had been a problem

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of interest to neurologists and alienists since the investigations of Westphal, in 1863.

He related the following case: P., æt. 47, at the time of coming under observation, was a man of good constitution, noted for his strength and endurance, but for three years he had not been well, during most of which period he had been treated by different physicians for rheumatism. He was addicted to venereal excesses, and used and occasionally abused alcohol. Many years before he had had a chancre, but had not subsequently had any of the ordinary evidences of secondary or tertiary syphilis. He had first suffered from darting or shooting pains in his feet and legs, soon he experienced sensations of numbness and tingling in his feet, and later in the little and ring fingers of the left hand. For a short time he was troubled with double vision, and his sight had diminished a little in acuteness.

The results of an examination made during the first week he was under observation, were as follows: No paralysis was made out; galvanic and faradic irritability were well preserved. He could not walk well after dark. He swayed and tottered on trying to stand with his heels together or with his eyes shut; and he could barely manage to stagger a few steps with his eyes closed. Paroxysms of sharp, sudden pains in the limbs were more frequent. He was awkward with his hands in dressing.

A peculiar sense of constriction on drawing in the lower part of the abdomen, had annoyed him for several months. Sexual desire had diminished. He had no delusions, and was fully able to attend to his business, which required a large amount of physical and mental exertion.

Under the use of nitrate of silver, galvanization of the spine, and faradization of the extremities, continued for several months, he improved remarkably; but after remaining better for a few months he again relapsed, and now he got steadily worse. Occasionally, however, he would temporarily improve. The anæsthesia of his feet and hands deepened; the straggling gait returned and grew worse; every two or three weeks he would have frightful attacks of lancinating pains.

Decided mental symptoms first began to make their appearance two years after first coming under treatment. He spent his money very freely upon others as well as upon himself. His ideas became queer and lofty; but the delirium of grandeur did not develop thoroughly until nearly a year later, when he began to talk and act in the most preposterous manner. About the same time, a peculiar stagger in his speech, a slight twisting of the mouth to one side, and some tremor of the tongue and lips, became noticeable when he talked.

Nearly three years after the notes first made, and almost six years after the development of ataxia pains, he was sent to the Insane Department of the Pennsylvania Hospital where Dr. Mills occasionally visited him. His delusions became of the wildest character; and he became irritable and hard to manage. Anæsthesia, tremor of tongue, etc., increased. On two occasions he had slight apoplectiform attacks, once accompanied by a slight spasm.

Later he was removed to the State Hospital for the Insane, at Danville, Pennsylvania, where he remained until his death, which occurred five years and four months after first coming under the care of Dr. Mills, and about eight years after he was first affected with ataxia pains.

A post-mortem examination of the brain and spinal cord was made. The pia-mater over both cerebral hemispheres, particularly in the postero-frontal and parieto-temporal regions, was opaque, congested and adherent at points; decortication being marked, convolutions were atrophied. The pia-mater of the cerebellum, especially over the superior vermiform process, was deeply congested and adherent. The pia-mater of the spinal cord was thickened; and the cord presented an irregularly shrunken appearance. Microscopical examination showed marked sclerosis of the posterior columns of the spinal cord throughout its whole extent, and that inflammation and thickening of the pia-mater were also present everywhere. The sclerosis was most pronounced in the lumbar region, decreasing in intensity as the cord was ascended; but it was well-marked throughout, both in the columns of Gall and in the posterior root zones. The medulla oblongata on one side was much sclerosed, and slightly so on the other side. Sclerosis was also present in the pons, crura, optic thalami, and convolutions examined, and in the cerebellum.

The pathological appearances shown by the microscope corresponded closely to those mentioned by Westphal. The posterior as occurring in the spinal cord in dementia paralytica. According to him, the posterior columns show few or no sections of nerve fibres, and their place is taken by a connective-tissue substance. In the cervical region Gall's cuneiform columns are especially affected; in the dorsal and lumbar regions, however, the entire area of the posterior columns is involved. In fresh preparations numerous granular fat-cells and corpora amylacea are found.

In this case the spinal symptoms were the first to appear. Three years before coming under the care of Dr. Mills, he began to suffer with the lancinating pains of posterior sclerosis. Although, when first seen by him, and until he improved under treatment, he suffered at times from mental anxiety and sleeplessness, apparently the result of the pain and other distressing symptoms of the ataxia; no typical mental symptoms appeared until more than two years after coming under Dr. Mills' care, and more than five years after the appearance of the first symptoms of spinal trouble.

Dr. Mills referred to the views of various authorities with reference to the relation of locomotor ataxia and general paralysis of insane. According to Westphal, with whom Hammond agrees, no direct relation exists between the morbid process in the cord in posterior spinal sclerosis, and that in the brain in general paralysis of the insane. According to these authorities, neither disease is secondary to the other. They simply coexist as the expression of an excessive proclivity to disease of the nervous system, just as any other two diseases may be present, one in the brain and the other in the cord, without there being any direct interdependence between them. Locomotor ataxia is by no means uncommon in patients affected with the other forms of insanity. Hamilton (*Medical Record*, July 29, 1876) discusses the relation of these two affections. Leidesdorf has related one case in which general paralysis was preceded by spinal symptoms. Maudsley speaks of other cases. Calmiel says that in many cases the changes proceed from the cord upwards, and Baillarger endorses his views. Charcot has proved very conclusively that disseminated sclerosis can exhibit all the symptoms of general paralysis of the insane. Cases reported by Obersteiner, Hamilton, Plaxson, Mickle, and others were also referred to by Dr. Mills. He dwelt in conclusion upon the importance of the occurrence of thickening of the pia mater and other evidences of a condition of chronic inflammation of this membrane.

DR. G. M. HAMMOND inquired if there were any patellar tendon reflex symptoms, and Dr. Mills answered there was diminution.

DR. SHAW said he had seen one case of locomotor ataxia followed by general paralysis, but there was no

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extravagance, it being of a dementia type. The patient died in epileptic convulsions.

DR. BIRDSALL, of New York, had examined post-mortem the case mentioned by Dr. Shaw, and referred to one or two interesting points in the condition of the cord. It presented, throughout its length upward from the lowest part of the lumbar enlargement, the appearance of an ordinary sclerosis of the posterior columns, in which the columns of Gall were more prominently shown in the upper portions, and the columns of Burdach and Gall in the lower portions. In addition to this there was, particularly in the posterior half of the transverse section of the cord, a peripheral sclerosis, or cortical sclerosis as it might be termed, which Dr. Birdsall thought was secondary to a slight meningitis, and, as he imagined, was a condition which existed in the case described in Dr. Mills' paper.

DR. MILLS, in reply to an inquiry, replied that aside from a sclerosis extending to a slight depth into the cord, meningitis did exist in the case described by him, and he considered it a very important point in connection with that and similar cases.

DR. WEBBER, of Boston, mentioned two or three cases; one, that of a prominent merchant, going to show the characteristic lancinating pains. These pains began in his forty-fifth year, and lasted five years; and then a second five years also associated with complete paralysis of the bladder, accompanied with most exquisite suffering. From the tenth year of the locomotor ataxia, Dr. Webber became acquainted with the patient and noticed then complete absence of the tendon reflex and cremaster, and the posterior sclerosis advanced in spite of all that could be done. In this case syphilis could be excluded. The patient finally showed all the symptoms of *dementia paralytica*, and died completely demented.

THE DISCUSSION OF DR. PUTNAM'S PAPER,

read at the afternoon session, was then taken up.

DR. WEBBER said that we have not got to the bottom of the influences which lead may have upon the nervous system. In connection with the various pricking and numb sensations and the parasthesia, etc., mentioned by Dr. Putnam, he said he had noticed, in nearly all cases of lead paralysis or lead poisoning affecting the spinal cord, coming under his observation, that the patients had various disturbances of sensation, but sometimes so slight and apparently insignificant, that patients paid very little attention to them, and had to be cross-examined in regard to them, and sometimes return to the subject repeatedly in order to ascertain whether these disturbances did not actually exist. Dr. Putnam had pointed out in his paper, one source of error in tests of the urine for lead, and Dr. Webber adduced another, viz., if the water is allowed to stand and decompose, becoming partially alkaline, a chemical reaction takes place between the alkaline liquid and the glass, and lead is precipitated from the glass.

DR. MILLS thought a sufficiently comprehensive view was not taken of the nature of cases of this kind. Every one in this branch of medicine had seen cases of metallic poisoning result in paralysis, and also diphtheritic affections. Just as had been pointed out by Dr. Putnam, while we are likely to have a typical form of the disease, we are likely to get affections of all sorts, cerebral, spinal, and so on. He had seen not only bilateral paralysis of the extensors in lead paralysis, but also some forms of tremor. He had seen within two days a well-marked case of lead poisoning, with weakness of all the limbs and tremor. It had been suggested that these poisons were protoplasmic poisons, and he thought there was a great deal in it.

DR. PUTNAM closed the discussion by insisting upon systematic examination of the urine in these cases to see whether lead could be found, even when there is no reason to suspect it from the general symptoms. He also urged the importance of carefully excluding the possibility of indications of lead from the presence in the system of bismuth, which should not have been taken for a considerable time.

THURSDAY, JUNE 21ST, SECOND DAY.

AFTERNOON SESSION.

DR. W. J. MORTON, *Vice-President*, in the Chair.

Upon the favorable report of the Council, Dr. R. L. Parsons, of Sing Sing, was unanimously elected by ballot to membership.

THE PRESIDENT, DR. ROBERT T. EDES, of Boston, then presented a paper on

THE EXCRETION OF PHOSPHITES AND PHOSPHORUS AS CONNECTED WITH MENTAL LABOR.

The paper consisted in a brief record of some experiments made upon himself to test the alleged increase in the excretion of phosphoric acid after mental labor. They were made chiefly in the afternoon as being the time during which it was easiest to secure tolerable uniformity in the other conditions.

In one set the time was partly occupied by a lecture or some similar exercise, and in the other passed as nearly in a state of mental vacuity as possible. Some of the later experiments, however, embraced a larger number of hours, employed mostly in reading or writing, and also the succeeding night.

The results showed no material difference in the average of phosphoric acid excreted, although the range of variation in individual experiments was considerable.

The average of the work hours was grm. 0.1153 of phosphoric acid per hour, and of the leisure hours grm. 0.1157. The quantity seemed to be more affected by the amount of urinary water than by any other circumstance, but did not follow this exactly. On several occasions the amount of water was considerably diminished during a lecture, and it is possible that this may be due to a temporary congestion of the brain, and consequent anæmia of the kidneys. It might be concluded from these experiments (so far as their limited number would justify any conclusion) that the demonstration of the value of phosphorus as a mental stimulus or tonic must rest rather on a clinical than a chemical basis.

DR. PUTNAM asked how the results corresponded with those found by others in similar investigations.

DR. EDES replied that he had not been able to find any others, except the vague statement made by Dr. Holmes in one or two of his essays, that if a clergyman did his duty on Sunday you could find it out by the amount of phosphorus in his urine on Monday. Dr. Holmes said he could not tell where he got the authority for the statement, but knew he had authority for it; therefore Dr. Edes' conclusion was that there was nothing distinctive about the finding of the phosphorus in urine, so far as he could find.

DR. JEWELL said that while he had not made investigations upon the subject such as those of Dr. Edes, yet looking at the matter in the light of common-sense, he had never been able to see why an organ, small comparatively as the brain should, even in a tolerably protracted mental effort, so extraordinarily increase the excretion of the quantity of phosphates as to make any very great change in the amount found in the urine. It seemed to him a thing entirely unreasonable. He had never found any reason for thinking that any such quantity was thrown off in the waste matters from the brain as to make much difference in the composition of the urine. It would be a surprising thing if

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there was any increase in the production of phosphorus in the urine from brain activity, and the thing seemed almost absurd.

DR. WEBBER, of Boston, read a detailed history of several *Cases of Locomotor Ataxia*, which were of especial interest on account of unusual symptoms and also of the marked remissions in their course. As it consisted of a large mass of details, all of which are essential to its interest and value, a suitable abstract of Dr. Webber's paper cannot be presented here.

DR. AMIDON, of New York, presented a case of *Tetanoid Pseudo-Paraplegia* occurring in a child, the tetanoid symptoms being preceded by a train of symptoms indicating subacute hydrocephalus. He made the query whether the cerebral trouble could not, by causing descending changes in the cord, account for the tetanoid symptoms, the etiology in most cases being very obscure

DR. AMIDON also presented two *Anomalous Cases of Parkinson's Disease*, the peculiarity consisting of an entire absence of tremor, every other symptom of paralysis agitans being present.

DR. GIBNEY, of New York, brought before the Association for examination two very interesting *Cases of Progressive Muscular Atrophy*.

DR. W. J. MORTON read a paper on the

TREATMENT OF SCRIVENER'S PALSY,

and exhibited a device in the form of a thimble of metal to cover the entire index-finger, having a longitudinal opening throughout its length, so as to be adjustable to the size of the finger, and having a slide at the tip for holding a stub-pen. The theory of the apparatus is that by enforcing extension and preventing flexion, the apparatus would not only enable the person to write with the affected hand, but by removing the cause of irritation lead to restoration.

FRIDAY, JUNE 22D, THIRD DAY.

AFTERNOON SESSION.

Dr. J. Leonard Corning was nominated for membership, and the nomination was referred to the Council.

The Secretary presented to the Society on behalf of the author the finely illustrated work of Dr. Mason, of Boston, on the *Central Nervous System of Reptiles*.

DR. G. M. HAMMOND presented a patient to the Association, stating that there was no doubt that it was a real

CASE OF LOCOMOTOR ATAXIA WITH RETURN OF THE REFLEX,

which was very apparent in one leg; all his ataxic symptoms had disappeared, except paralysis of the sphincter, he being still unable to wholly hold his water.

To various inquiries Dr. Hammond answered that the treatment in the main had been iodide of potash, and the electric wire broom to the spine; that neither was relied upon mainly, but as taken together. The preparation of iodide of potash was the saturated solution, twenty-five grains three times a day. At first the patient could not see well, he could see partially; at the distance of ten feet he could not see the hands of a large clock; he could not write; there had been slight arm symptoms.

DR. MILES, of Baltimore, read a paper on "*Nutritive Alterations in the Hand, from Pressure of the Head of a Dislocated Humerus in the Axilla*," accompanied by photographs.

DR. BURT G. WILDER of Ithaca, read a paper on

THE BRAIN OF A CAT LACKING THE CALLOSUM.

Although there have been recorded several cases of more or less nearly complete absence of the great cerebral commissure in human beings, the specimen exhibited (with photographs) seems to be the only case of the kind among the lower mammalia, being the only case occurring in the Anatomical Laboratory of the Cornell University among the several hundred cats' brains there examined. There is not a trace of the callosum, nor of the fornix beyond the dorsal limits of the portæ (foramina Monroi); the præcommissure and medicommissure are larger than usual. Unfortunately nothing whatever is known of the history or habits of the cat. Now that the unique specimen has been submitted to the Association, Prof. Wilder will feel more free to dissect it.

DR. WILDER also read a paper on

THE ALLEGED HOMOLOGY OF THE CARNIVORAL FISSURA TRUCIATA WITH THE PRIMATIAL FISSURA CENTRALIS.

Referring to the assumption by T. Lauder Brunton (*Brain*, January, 1882) that these fissures "correspond," Prof. Wilder made the following suggestions: 1. Writers should specify whether by "correspondence" they mean *analogy* or *homology*, a relation based upon the position of a fissure, based its location among experimentally determined "motor areas," or a relation implying identity as determined by embryology and comparative anatomy. 2. The present disagreement of competent authorities respecting the homology of these two fissures should restrain both physiologists and zoölogists from assuming the correctness of any particular view; for example, the human centralis has been homologized with not only the cruciata but the superorbitalis, the coronalis, and the ansata together with the coronalis (in connection with which last idea was shown a fœtal human brain exhibiting the somewhat rare condition of an interruption of the centralis); the cruciata has been homologized with not only the centralis, but with the first frontal, the calloso-marginalis, and the occipito-parietal. 3. The surest method of determining the true homology seems to be the one which is outlined in Wilder and Gage's *Anatomical Technology*, to make careful and extended comparisons between the brains, especially fœtal specimens, of man, monkeys, and the *lemurs* on the one hand, with those of cats, dogs, and *seals* on the other. The lemurs are primates with some characters of the carnivora, while the seals, though carnivora, have the occipital lobe and the postcornu of the procœlia (cornu posterius of the ventriculus lateralis).

AFTERNOON SESSION.

DR. W. J. MORTON read a paper entitled

REMARKS ON THE TREATMENT OF MIGRAINE.

After commenting upon the confusion in which the entire subject of the treatment of migraine exists, and enumerating the different remedies empirically employed, Dr. Morton proceeded, upon the basis of familiar facts, to inquire whether the disjointed assaults upon the disease might not be arranged into a systematic method of treatment upon the vaso-motor theory of the disease, and referred to the hypothesis of DuBois Reymond, that the symptoms of migraine or hemicrania may be explained by the existence of a contraction or tetanus of the muscular walls of the bloodvessels of the affected side. Dr. Morton said: In the vaso-motor theory we find a definite working basis for the practical treatment of the disease, in which clinical observation and experimental physiology are singularly in unison. According to this hypothesis vascular dilatation or contraction of the arteries within the cranium, and a corresponding condition externally, plus certain characteristic oculo-pupillary phenomena, form collectively a group of symptoms similar to those produced by irritation or destruction of the ordinarily

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accepted vaso-motor mechanism. But whence the origin of the stimulus that awakes the functions, or in other words, the symptoms, is beyond our present knowledge. Whether in the vaso-motor centre itself, or in the local centres of the arteries, contracted or dilated; in the ganglion or tract of the cervical sympathetic; or in some distant sentient surface (reflex action); or whether we have to deal with chemical stimuli (changed quality of blood) acting upon the central vaso-motor centre, we are entirely ignorant. The best evidence points to the cervical sympathetic, or its corresponding spinal centre, as the seat of the disease. And according as one or the other exists, we have the angeio-spastic or the angeio-paralytic type of the disease. The diagnosis of the type then, and not the simple diagnosis of the disease itself, determines the treatment; often by diametrically opposed measures or remedies.

Having mentioned the general grounds of diagnosis, Dr. Morton stated that out of thirty-five private cases, but six were of the paralytic type, and concludes that it will be generally admitted that the spastic type is by far the more common. The treatment of the angeio-spastic type is by bromide of sodium, 60 grs. at the very outset, repeated in an hour and a half if the attack does not cease. This he had seldom known to fail of bringing almost immediate relief, where otherwise the patient would go through the usual course of twenty-four to forty-eight hours of suffering. The patient should then be put upon a course of the same remedy, giving 15 grs. three times a day for from three to six months. Cod-liver oil alternating weekly with maltine, and also a preparation of iron, should be given in conjunction with the bromide of sodium treatment. Dr. Morton said: I know there is a widespread prejudice against the "bromide treatment," owing to its depressant action upon the economy, but I believe that this objection applies only to the potassium salt. In the bromide of sodium treatment, by careful management with tonics, the slight adynamic effects may be counteracted, while, at the same time, those very exalted functions of the tissues which we wish to restrain are held suspended. To the objection often made to the bromide of sodium treatment—viz., that the bromide of sodium reduces the amount of blood in the brain, and should not be used in the treatment of the spastic type where anæmia already exists—I answer that in this type, paradoxical as it may seem, the bromide actually increases the amount of blood in the brain over and above the previously existing ischæmia due to the spasm of the vessels. This it probably does by depressing the excitability of the irritated vasomotor mechanism.

Treatment of the spastic type of migraine by glonoin or by nitrite of amyl seems to have a secure foundation in clinical experience, the glonoin producing the more lasting effects of the two, and being in many instances of remarkable efficacy. Glonoin relieves the angeio-spastic form of the disease by its action upon the vaso-motor mechanism. It probably removes irritability of the centres. Both the bromide and the glonoin may be used in the same case, and often with better results than by either alone, the bromine being given before meals and the glonoin after meals.

The angeio-paralytic type. The diagnosis being once made, measures to restore the tonus of the relaxed arterial walls are called for, and may be theoretically called into activity by strychnia in increasing doses, until the full physiological effects are produced, and then returning to the original dose and repeating. But the chief remedy indicated in this type is ergot, its action being to produce vaso-motor spasm.

DR. HAMMOND said, in reference to the diagnosis of the two different kinds of migraine, that one important means is the difference in temperature in the two sides of the face. In the paralytic form, the temperature of the external auditory canal is from a degree to two degrees higher on the affected than the sound side; and in the spastic variety it is as much as that lower than on the sound side. This is a very simple means of determining what kind it is, when sometimes without that it is difficult to determine. Dr. Hammond said he had met with two cases where the patients had suffered from the paralytic variety on one side and the spastic on the other, and failed to cure either of the cases, and he inquired how such a case should be treated. Again, he wondered why Dr. Morton had not laid more stress upon the administration of strychnia in the paralytic variety, which he thought more efficacious than ergot, strychnia in gradually increasing quantities being very valuable.

DR. MILLS said that he had found that it may be possible to have the two varieties, both paralytic and spastic on the same side.

DR. DANA thought it rather strange that a cut-and-dried treatment, based upon the paralytic or spastic condition should be so prominently put forward. In his experience he had not been able to distinguish between the two forms in many cases. As to treatment, he had found the fluid extract of cannabis indica especially effective when the attack was coming on, given in small doses, frequently repeated.

DR. BIRDSALL exhibited statistics collected from various sources, including his own, tending to show *the relation of syphilis to locomotor ataxia.*

DR. BIRDSALL also exhibited *a hand electrode* of his own device for getting electrical reactions, and also for therapeutical purposes.

EVENING SESSION.

DR. DANA, of New York, read a

NOTE ON THE TREATMENT OF CHOREA BY THE SEDATIVE GALVANIZATION OF THE BRAIN.

He described the objective and subjective phenomena resulting from galvanization of the brain, referring to the experiments of Loewenfeld and of Legros demonstrating the vascular change produced by this procedure. A review of the work of various experimenters was given. He deemed the therapeutical and physiological effects due in part only to the action upon the vessels, and in part to the change of tissue and irritability and tissue metamorphosis. He advocated the abandonment of the term current direction, and the adoption of the polar nomenclature and method. Nodal galvanization of the brain increased the tone of the bloodvessels, caused diminution of tissue irritability, and was therefore indicated in chronic functional irritative diseases like chorea. He had used nodal galvanization of the brain in eight cases of chorea minor, with a favorable result in each case. One case of long standing had been promptly checked in two weeks. A very violent and obstinate case which had resisted arsenic, rapidly improved under electricity. The average duration of the disease was less than forty days. Galvanization of the brain should be pursued daily for from seven to ten days. The positive pole with a large sponge electrode was placed over the motor centres, the negative pole in the opposite hand. A current of three to six Stöhrer's cells was used. Arsenic might be given at the same time, especially if the galvanizations could only be given three or four times a week. Confirmatory results by Erb and Berger were referred to.

DR. BURT G. WILDER, of Ithaca, then read a paper on

THE REMOVAL AND PRESERVATION OF THE HUMAN BRAIN.

Assuming the great value of an accurate knowledge of

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the gross structure of the human brain as a foundation for histological research and for comparative anatomy and psychology, Prof. Wilder urged that in all museums and in the private collections of medical men, and especially teachers, there should be preparations of brains removed without the risk of tearing delicate parts, and perfectly preserved. For the sake of obtaining such brains, no fine labor or expense should be spared, and the other parts of the head should be sacrificed if necessary. Prof. Wilder then proceeded to give an account of the methods of dissection, injection, and hardening now employed in the anatomical laboratory of Cornell University, the primary object of which was to make reliable microscopic preparations of the brain.

PROF. WILDER also read a paper on *Some Points in the Anatomy of the Human Brain.* A large number of preparations and photographs were shown illustrating the various points.

DR. SEGUIN, of New York, who is now in Europe, sent to the Society a paper entitled

NOTES ON SPANISH ASYLUMS FOR THE INSANE.

This paper consists of notes taken during the past winter while visiting the principal accessible Spanish asylums. An account of each institution was given; their statistics are quoted; their methods of treatment detailed, criticised, and suggestions for improvement advanced. According to the statistics collected, there was an apparent increase of insanity in Spain during three years of thirteen per cent. The Spanish alienists gave estimates of the frequency of general paralysis varying from two to twenty-five per cent. As causes of this form of insanity, they enumerate alcoholism, excessive intellection, and syphilis as among the most common.

It was found that, with the exception of half a dozen men, most of those in charge of the insane had but little knowledge of the subject of psychiatry. But few of them could read any language except French and Spanish, and they seemed to have the vaguest knowledge of the wonderful influence of non-restraint and occupation, as practised in the English and Scotch asylums. There is very little clinical instruction in mental diseases, and there is no association of alienists.

The general management of private asylums is very good. The Provincial are all bad; want of grounds, small size, want of rooms or materials for amusement or instruction are marked. There was often an apparent notion that many patients were "utterly demented," unconscious of comforts or discomforts, and indifferent to their surroundings; this idea leading to neglect and cruelty. With the exception of at the Valencia asylum, little and harmless restraint is used. At Valencia, not only were camisoles, ordinary muffs, wristlets, etc., employed, but there was in use an iron belt, made in two segments, connected behind by a hinge, and closing in front by a nut and screw. The belt is five centimetres wide and four millimetres thick, and has a manacle on each side for the wrists which gives the arms only about three inches play. This iron apparatus is not lined or padded in any way, and weighs nine or ten kilos.

In one long, narrow, dismal room there were between thirty and forty women squatting, nearly naked, on straw. Their only clothing was a coarse shift, open in all directions. Over this howling, moaning, singing, and rocking crowd a woman (assisted by a bad-looking man) held sway. The males were equally devoid of comforts and clothing, and this in a climate making winter underclothing and a fall overcoat comfortable to a New Yorker. They appeared to have no occupation, diversion, or amusement.

Whatever their faults as alienists, everywhere the visitor was met by the asylum physicians with the most extreme courtesy, and the most complete readiness to show everything, good and bad, to the guest.

NEW HAMPSHIRE MEDICAL SOCIETY.

Ninety-third Annual Meeting, held at Concord, January 19 and 20, 1883.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 19TH, FIRST DAY.

THE Society was called to order at 11 o'clock A.M., by the *President*, DR. A. H. CROSBY, of Concord, and prayer was offered by the Chaplain, Rev. F. D. Ayer, of Concord.

The meeting was large for a State where the profession are so widely separated; as it was found, that out of over two hundred active members, about one hundred and thirty were present.

DR. F. A. STILLINGS, *Chairman of the Committee of Arrangements*, explained to the members the programme for the day, and invited visiting delegates to the Anniversary Dinner.

The usual committees were announced by the Chair, and various routine business incident to the opening session was transacted.

The committee on the reception of delegates announced through the Chairman, that Vermont, Massachusetts, and Rhode Island were represented, and the delegates from those States were introduced to the Society.

THE REPORT OF THE COUNCIL,

which had met the evening previous, was read by the Secretary, and it appeared that twenty-five new members were recommended for election, and that only four deaths had occurred among the members during the past year.

An application for a district society had been granted. Various questions of Ethics had been disposed of, and the following preamble and resolutions relative to the

LIBRARY AND MUSEUM OF THE SURGEON-GENERAL'S OFFICE

were recommended for adoption by the Society.

Whereas, The medical profession of the United States, as well as of foreign countries, have contributed to the collections known as the Medical Library and Museum of the Surgeon-General's Office, at Washington, D. C., and

Whereas, These collections have become the most complete and valuable of their kind in the world; being of inestimable value to the profession, and of national importance to the public, and

Whereas, We firmly believe, that as citizens, the medical profession of this country have claims upon our government to protect and preserve these records of our self-sacrificing professional labor, and,

Whereas, By reason of the building in which these collections are now deposited, being reported by the War Department as insecure, and in constant danger of destruction by fire, from which would ensue irreparable loss; therefore,

Resolved, That in the opinion of the members of the Medical Society of New Hampshire, the great value of these collections demands from Congress such fair consideration of the merits involved as will secure an appropriation of sufficient amount to provide for the construction of a fire-proof building suitable in all its appointments to protect and preserve all books and material now on hand, or that will probably be contributed in the future.

Resolved, That the medical profession of New Hampshire, in common with that of all the other States of the Union, are a unit in their belief that a

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library like that of the Surgeon-General's Office, will prove of much benefit to the profession and ultimately to the public, and that having a representation politically in the ranks of the great political parties of the country, this great work is entitled to consideration as much as any subject connected with internal improvements, or the construction of public buildings for the use of courts, customs, or postal facilities.

Resolved, That the President and Secretary of this Society, send a copy of these resolutions to each member of Congress from New Hampshire, also to the Surgeon-General, U. S. A.

The report of the Council was accepted.

At twelve o'clock the PRESIDENT read his

ANNUAL ADDRESS,

of which the following is a brief abstract.

He took for his subject the "Country Practitioner." He compared the country doctor of 50 years ago, who gathered his own herbs and made his own decoctions, with the present physician, who has the assistance of vast laboratories to aid him in his profession. The country doctor believed in the lancet, and in freely bleeding the patient in a variety of conditions. In the city circles this practice has gone into disuse, but bleeding is still occasionally resorted to. His charges have always been low, compared with rates prevailing in the city. In old times he carried on a farm as well as attended to his patients. His chief trouble was in getting established, because the selectmen were liable to warn him out of town if he was poor.

In old times the medicines were few and simple, the common remedies of to-day being almost unknown. One shilling was the fee for an office visit, the most important operation being performed for one dollar. His office was a terror to the uninitiated, but his visits were cheerful to the patient. The speaker gave a cursory glance at the history of medicine in the old world, leading over to the sources of information available to the student in pursuit of knowledge. In surgery the old country doctor was almost as helpless as in medicine.

He complimented the country surgeon on his happy faculty to improvise instruments and appliances to meet emergencies, and instanced many cases in which the carpenter's shop and the tinsmith had assisted the country practitioner to save life and limb.

The address was followed by an *Oration* by DR. GEO. W. HATCH, of Wilton.

DR. F. A. STILLINGS, of Concord, then read a paper on

THE TREATMENT OF INDOLENT ULCERS AND CARBUNCLE.

In carbuncle it was his practice to make a crucial incision as soon as called for, and with a hypodermic syringe introduce into each angle a few drops of carbolic acid of full strength, which at once produced an anæsthetic effect, allayed pain, and hastened the sloughing necessary to bring about resolution. The treatment recommended for indolent ulcers was painting the edges with a strong solution of nitrate of silver and applying a double roller bandage. The speaker also referred to the manner in which cloth or felt splints could be made at short notice from a solution of gum shellac.

DR. WM. T. SMITH, of Hanover, read an essay upon

COLDS.

He claimed that the subject, though a familiar one, is well worthy of the attention and study of medical men. A cold is essentially a disturbance of the nervous system caused by a lowering of the surface temperature of the body, and usually manifesting itself by a catarrh of the respiratory tract, though it may affect almost any organ or tissue. The writer described briefly the great historical epidemics of influenza, which are generally supposed to have been caused by a germ in the atmosphere, and raised the question whether the prevalent catarrhs of the past season might not rightly be called influenza, and whether, after making due allowance for exaggeration in the old writers, and the greater severity of many diseases in early periods, these famous epidemics might not themselves be brought into the category of colds due to unsanitary surroundings and atmospheric change. The best treatment for colds is prophylactic. Habits which invigorate the whole system, and especially the skin, which is the point of attack. Daily bathing and friction of the surface is more valuable than any other single measure. The speaker alluded to the nervous shock which some receive when exposed to the cold, and said that any remedial measure that would raise the standard of vital force, and offer more inherent resistance to such shock, would prove of great advantage.

The oration entitled *The Great Work*, by DR. BLAISDELL, of Controcook, was well received, and a paper on *Water Pollution*, by DR. WATSON, Secretary of the State Board of Health, was a *resumé* of the dangers so often met with in all sections of the country, with an abstract of the results of such investigations the Board had made, and closed with an offer to the members of assistance to investigate instances in which there was reason to believe water pollution was a factor in producing the disease, as a series of such investigations would prove of value when properly conducted and tabulated.

DR. D. S. ADAMS, of Manchester, continued a report commenced at the last annual meeting of a case of *Pulmonary Abscess*, and brought the patient before the members to illustrate his condition as compared with one year since. There is still an open pulmonary fistula, through which air will pass when forced inhalation is practised, yet he has gained several pounds in weight, and the report said he should have considerable hope that he might attain a comfortable degree of health for a few years if his habits did not lead him to all kinds of excess.

DR. P. A. STACKPOLE, of Dover, read a dissertation on *Venesection*, and took the ground that the fact that blood-letting had become one of the lost arts was not of an advantage to the profession or the public.

He claimed that in many diseases the course could be shortened or modified far better with the lancet than with drugs, yet the diagnosis must be correct, for it was far too potent an agent to use in cases in which mere guesswork was the foundation for treatment.

WEDNESDAY, JUNE 20TH, SECOND DAY.

The Society came to order at 8.30 A. M., and reports of district societies, delegates to other States, and delegates to Dartmouth Medical College were read, and considerable miscellaneous business was transacted, and the following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—John W. Parsons, M.D., of Portsmouth.
Vice-President.—John Wheeler, M.D., of Pittsfield.
Treasurer.—D. S. Adams, M.D., of Manchester.
Secretary.—G. P. Conn, M.D., of Concord.
Anniversary Chairman.—A. P. Richardson, M.D., of Walpole.
Executive Committee.—Drs. A. H. Crosby, Charles R. Walker, of Concord; and George D. Towne, of Manchester.

A Council consisting of twenty members, and a Board of Censors made of ten members, was chosen, representing the various sections of the State.

The Next Annual Meeting will be held in Concord on the third Tuesday of June, 1884.

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RHODE ISLAND MEDICAL SOCIETY.

Seventy-second Annual Meeting, held at Providence, June 21, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Rhode Island Society held its Seventy-second Annual Meeting in Lyceum Hall, Providence, Thursday, June 21st. The *President*, DR. JOB KENYON, occupied the Chair.

The *Secretary*, DR. GEO. D. HERSEY, presented his report, showing that four meetings of the Society had been held during the past year; that the present active membership numbers one hundred and eighty-five, and that three Fellows have died since the last annual meeting, viz., Drs. George Capron, Geo. E. Mason, and Nathaniel A. Fisher, all of Providence.

The Report of the Treasurer, DR. C. H. LEONARD, was as follows:

Received, ...	$1,083 21
Expended, ...	723 19
On hand, ...	$360 02

It was voted to add the sum of $490 to the Publishing Fund.

The Reports of the Delegates to the American Medical Association were called for. Drs. D. Homer Batchelder and Ariel Ballou responded, speaking in favorable terms of the proceedings at the Cleveland meeting, and of the general outlook for the future of the Association.

The Board of Censors reported the names of five applicants for membership, said applications to lie over till the next regular meeting, according to the by-laws.

Dr. R. M. Griswold, of North Manchester, Connecticut, was introduced as a *delegate from the Connecticut Medical Society*.

Dr. H. R. Storer, of Newport, a *delegate from the Newport Medical Society*, being called on, spoke pleasantly in behalf of the Society he represented, whose membership of seventeen, he said, included all the regular physicians of Newport except one or two.

DR. C. H. PARSONS, *Chairman of the Trustees of the Fiske Fund*, reported briefly as to the investment of the same.

The following gentlemen were then elected

OFFICERS FOR THE ENSUING YEAR:

President.—Job Kenyon, M.D.

Vice-Presidents.—O. C. Wiggin, M.D., and H. G. Miller, M.D.

Secretary.—George D. Hersey, M.D.

Treasurer.—Chas. H. Leonard, M.D.

Censors.—Drs. Ariel Ballou, Otis Bullock, J. H. Eldredge, Geo. P. Baker, J. W. C. Ely, Lloyd Morton, S. S. Keene, Benj. Greene.

The reports of delegates to other State Societies being in order, Dr. H. G. Miller responded as delegate to Massachusetts; Dr. W. S. Bowen to New Hampshire; Dr. Neil O'Donnell Parks to New Jersey; Dr. W. E. Anthony to Maine, and Dr. Browning to Connecticut.

The Chair presented a communication from the Secretary of the Newport Medical Society, accompanied by a draft of an enactment to be presented to the General Assembly of the State, providing for the

ABOLITION OF THE PRESENT CORONER SYSTEM

by so modifying it that only properly qualified persons can be appointed to the office of Coroner.

Several Fellows spoke with much earnestness on the subject, urging the need of change and reform in our present system, and citing instances from their present experience illustrative of the same.

The proposed Act, as now framed, provides for the establishment of the office of *Medical Examiner* and gives in detail the duties of the office. Section I. abolishes the office of Coroner altogether. Section II. provides for the election by the General Assembly of able and discreet men in each county, learned in the science of medicine, who shall be between the ages of twenty-five and forty-five years, to be medical examiners. Section III. regulates the number of examiners for each county. The remaining clauses of the Act, as framed, relate to the time for which such examiners shall hold their office, amount of bond required, fees, manner of examination, expenses, subpœnas for witnesses, duties of trial justices, etc., thus so entirely changing the law bearing on coroners and their duties as to admit of the appointment of none but regular practitioners of medicine, and to preclude all possibility of concealing the crime of murder or evading punishment for endangering human life.

It was voted to appoint by ballot a committee of three Fellows, to whom the subject shall be referred for consideration and modification if necessary, with instructions to report on the same at the next quarterly meeting.

The committee elected were the following: Dr. Ariel Ballou, of Woonsocket: Dr. Samuel W. Francis, of Newport; and Dr. James H. Eldredge, of East Greenwich.

It was also voted that two hundred copies of the proposed enactment be printed for the use of the Society.

It was then voted that the next quarterly meeting be held at Newport.

The President, DR. KENYON, then read his *Annual Address*. It was a thoughtfully written paper on the subject of "Rational Therapeutics," and received the close attention of the Society for the twenty minutes of its delivery.

The meeting then adjourned to Spink's Hall, where the annual dinner was served, Dr. S. W. Francis acting as Anniversary Chairman.

MINNESOTA STATE MEDICAL SOCIETY.

Fifteenth Annual Meeting held at Minneapolis, June 19 and 20, 1883.

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, JUNE 19TH, FIRST DAY.

MORNING SESSION.

THE Society was called to order by the *President*, DR. P. H. WILLARD, of Stillwater.

After the usual preliminary exercises, DR. MCMURDY, of Minneapolis, extended a hearty welcome to the Society on behalf of the city and of the medical profession, and he was followed by the *Chairman of the Executive Committee*, DR. KIMBALL, of Minneapolis, who set forth the order of business adopted, and then, in the name of the physicians of Minneapolis, invited the Society to make an excursion after its adjournment to Lake Minretonka, and to a banquet at the Hotel Lafayette, at that favorite watering-place.

About forty applicants for membership were, upon recommendation of the Committee on Credentials, elected by the Society.

THE LIBRARY AND MUSEUM OF THE SURGEON-GENERAL'S OFFICE.

DR. TALBOT JONES, of Saint Paul, introduced the following resolutions, which were unanimously adopted:

Whereas, The collections known as the Army Medical Library and Museum of the Surgeon-General's Office, Washington, D. C., are the most extensive and

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valuable in America, and are unequalled even in Europe, and as their usefulness to the medical profession is very great, as is evidenced by the many years spent in their collection, by their emphatic endorsement by the said profession, and by the anxiety evinced lest they should be injured or destroyed; and

Whereas, This valuable collection is now placed in a building altogether inadequate to its proper care and protection, and is constantly in danger of being destroyed by fire, which would cause an irreparable loss to the profession throughout the country; therefore

Resolved, That the Minnesota State Medical Society, recognizing the inestimable value of the Army Medical Library and Museum, believe that Congress will meet the wishes of the medical profession of the United States by making an appropriation sufficient to provide a fire-proof building suitable, as regards security and size, to accommodate the collections; and they are respectfully but earnestly urged to make such an appropriation.

Resolved, That a copy of these resolutions be sent to each senator and representative of our State, and that they be urged to use all their influence in bringing the matter before Congress, and in securing favorable action in the premises.

AFTERNOON SESSION.

Upon reassembling in the afternoon the President delivered

THE ANNUAL ADDRESS,

in which the Society, while congratulated upon its *esprit de corps* and devotion to the highest interests of the medical profession, was reminded that the standard of professional excellence is high, and that efforts for its maintenance should not be relaxed. Reference was made to the act regulating the practice of medicine, which was adopted by the Legislature last winter; confidence in its efficacy was expressed, with the conviction that its operation would prove both effectual and beneficent in exposing and expelling pretenders, and in protecting legally qualified physicians as well as the public at large. Some notice was given to antisepsis as a surgical method as resorted to in Great Britain and on the Continent, but Listerism in all its minute details was not commended. Finally, attention was directed to the labors of Koch and others in the field of mycology, and to the importance both to pathology and therapeutics of the results that may be anticipated.

THE REPORT OF THE COMMITTEE ON MEDICAL EDUCATION,

was presented by the *Chairman*, DR. HEWITT, Secretary of the State Board of Health. It was chiefly an appeal to the members of the Society to lend their influence to secure a more thorough training of the student, especially as preparatory to his attendance upon lectures; and the opinion was expressed with warmth, that the degree of M.B. should precede that of M.D., as no man can be truly called *doctor* until he has acquired, by experience, the qualifications and ability to teach others.

Occasion was taken to comment at length upon the new law regulating the practice of medicine in Minnesota, whose most important provisions are, briefly, as follows: A faculty of five physicians is elected by the Regents of the State University, comprising Chairs of Anatomy, Practice, Surgery, Materia Medica, and Obstetrics [the gentleman to whom the latter Chair has been assigned represents the homœopathic school]. The functions of the faculty are purely those of an examining Board; whatever may be done hereafter in organizing a medical department of the University as a school, at present it is not intended that the faculty shall be teachers. All physicians and persons practising medicine, of whatever creed or school, are required to present their diplomas to the faculty, and its members are empowered to decide which schools shall receive recognition and which shall not. All who possess credentials satisfactory to the Board, are enrolled as legally qualified to pursue their calling; others are required to pass an examination, which, if accomplished, entitles them to a license to practise, but if not, makes them liable to penalties should they continue to pursue the profession of a physician. The foregoing relates to all physicians the minimum period of whose residence in the State has been five years: those who have become residents within that time must pass an examination, without regard to the validity of their credentials: upon compliance with this requirement, if successful, a license to practise is issued, even though the applicant be not a graduate. Presentation of bogus diplomas is made equivalent to forgery, and, constituting a criminal act, is punishable by severe penalties.

It is believed that the enforcement of the law will eventually be of value in thus plainly designating those who are entitled to the confidence of the community; and the separation of the offices of teaching and examining is regarded as a step which must sooner or later be taken wherever medicine is taught.

A Case of Leprosy, in the person of a young Norwegian, was exhibited to the Society by Dr. Stone, and excited much interest.

THE COMMITTEE ON PRACTICAL MEDICINE

presented a report through its *Chairman*, DR. ABBOTT, of Minneapolis, who dealt mainly with croup and diphtheria; the question of their identity, their etiology, pathology, and treatment: the report closed with an able and carefully prepared paper by Dr. Abbott, upon tracheotomy and its value as a remedial measure in acute laryngeal disease. The report, embracing citations of cases, was discussed with much interest; an animated debate occurring upon the question whether it is always practicable to differentiate with certainty, follicular tonsillitis, and diphtheria. A case had been reported of a child, suffering apparently from an ordinary attack of the former affection, in whose mouth and fauces no membrane could be discovered, and who, though discharged from treatment after three days, was attacked in about a fortnight by paralysis clearly of diphtheritic origin, and which proved rapidly fatal; *i. e.*, within a month from its commencement. The question was raised whether there are not cases of diphtheria analogous to those of the exanthemata in which the eruption seems to be absent; diphtheria without the membrane, yet manifestly diphtheria. As regards tracheotomy, the usual difference of opinion prevailed; some advocating it in every case, regardless of type, in which laryngeal stenosis occurs to an extent sufficient to cause even moderate dyspnœa, and others affirming that it should be limited to cases in which no pronounced toxæmia exists, as this in their opinion would contraindicate the operation.

DR. WHEATON, of St. Paul, *Chairman of the Committee on Surgery*, read a paper

ON SHOCK,

in which, after dwelling upon its pathology, he deprecated the practice of primary amputation after railway injuries, and maintained that the operation should not be performed until the period of reaction arrives. In the ensuing discussion, this view seemed to be entertained by the Society, though there was some difference of opinion as to the agency of psychical influences in the production of shock.

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Reports were received from various committees. That upon Diseases of Children, by DR. OWENS, dealt with

DIPHTHERIA.

A firm belief in the germ origin of the disease was expressed, and the internal administration of iodine and carbolic acid recommended as a treatment both logical and effectual. The debate which followed revealed the usual diversity of views; some contending for and some against the local origin of the malady, while others held that it may be either local or general in its mode of invasion. So, also, the value of albumen in the urine as an element in prognosis was denied by some and upheld by others.

The report of the Committee on Obstetrics, by Dr. Lincoln, included the relation of cases of dystocia and of placenta prævia, with their management.

On motion of the *Treasurer*, DR. SHEARDOWN, it was ordered that an honorarium of two hundred dollars be presented to Dr. Boardman, in acknowledgment of his services as Secretary; he having discharged the duties of the office for several years without compensation.

WEDNESDAY, JUNE 20TH, SECOND DAY.

DR. HUNTER, of Minneapolis, a pupil of Lister, exhibited to the Society a *Case of Compound Fracture of the Ankle*, and in their presence applied dressings in accordance with the tenets of the illustrious apostle of antisepsis.

It was ordered that the *Northwestern Lancet*, published in St. Paul, be made the official organ of the Society.

THE ANNUAL ESSAY,

by DR. RIGGS, of Saint Paul, had for its theme Functional Nervous Disease, and, more particularly, Neurasthenia. In this paper the statement was made that Minnesota is more productive of this class of neuroses, in proportion to her brain-working class, than any other State in the Union; and that, as a result of our climatic environment, we are more sensitive to heat and cold than foreigners. Galvanization of the brain and superior ganglion of the cervical sympathetic was recommended as useful in brain-exhaustion; and, in the insomnia so frequently attendant upon functional nervous disease, the writer affirmed that no measures are comparable with galvanism and frequent feeding during the night. The bromides, chloral, opium, and alcohol should seldom be used, since galvanism, careful nutrition, and massage will, in a more successful manner, meet the exigencies of the case. In the speaker's experience, galvanism is infinitely superior to faradization in the treatment of functional nervous disease, notwithstanding the statements of Beard and Rockwell to the contrary. In some cases, static electricity was held to be of value.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. W. L. Lincoln, of Wabashaw.

Vice-Presidents.—Dr. E. J. Davis, of Mankato; Dr. Jas. Davenport, of Saint Paul; Dr. R. L. Moore, of Spring Valley.

Treasurer.—Dr. S. B. Sheardown, of Stockton.

Recording Secretary.—Dr. C. H. Boardman, of Saint Paul.

Corresponding Secretary.—Dr. Clara E. Atkinson, of St. Paul.

Dr. Fenger and Dr. C. T. Parks, of Chicago, and Dr. Ayres, of Omaha, were elected *Honorary Members.*

The usual complimentary resolutions were adopted, and the Society adjourned, to meet in Stillwater on the third Tuesday of June, 1884.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

THE CODE AND THE RESULTS OF THE POLL OF THE PROFESSION IN NEW YORK STATE.—The Council of the New York State Medical Association for upholding the National Code of Ethics, reports the progress made in the canvass which has been undertaken to ascertain the views of the profession of the State on the subject of the Code of Ethics, as follows: A circular has been sent to each member of every county society, and also to many who are not members of county societies. Two thousand two hundred and fifty-six affirmative replies have already been received. The number is increasing daily. In the city of New York alone, upwards of seven hundred medical gentlemen have signified in writing their adherence to the National Code, and their names are appended to this report. Many in this and other counties are still silent, and these are earnestly appealed to for a speedy answer, as it is desired that the vote of every member of the regular profession be given on this question.

The subjoined exhibit gives, by county, the number of those who are in favor of the National Code. Many county societies known to be loyal have not yet sent in their full quota.

Number of Physicians, in each County of the State of New York, who uphold the National Code of Medical Ethics.

COUNTIES.	Nos.	COUNTIES.	Nos.
Albany	40	Onondaga	66
Allegany	14	Ontario	21
Broome	28	Orange	18
Cattaraugus	14	Orleans	16
Cayuga	20	Oswego	20
Chautauqua	26	Otsego	15
Chemung	21	Putnam	7
Chenango	46	Queens	44
Clinton	27	Rensselaer	74
Columbia	14	Richmond	11
Cortlandt	22	Rockland	9
Delaware	16	St. Lawrence	13
Dutchess	40	Saratoga	27
Erie	107	Schenectady	12
Essex	14	Schoharie	12
Franklin	15	Schuyler	12
Fulton	10	Seneca	21
Genesee	15	Steuben	18
Greene	17	Suffolk	18
Herkimer	25	Sullivan	17
Jefferson	23	Tioga	19
Kings	148	Tompkins	13
Lewis	11	Ulster	19
Livingston	11	Warren	18
Madison	19	Washington	10
Montgomery	16	Wayne	24
Monroe	53	Westchester	44
New York	742	Wyoming	12
Niagara	25	Yates	9
Oneida	58		

Total, for the whole State, to June 21, 2256.

The above exhibit indicates how each county now stands, and what the chances are for an increase of the majority for the National Code.

The Council having canvassed all sides, beg leave to report that six hundred and thirty-nine (639) in the whole State have declared themselves in favor of the "New Code," and two hundred and five (205) in favor of no code; of these latter, many say, "no Code rather than the New, but if there is to be a Code let it be the

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National." More than twenty-two hundred (2200) in this State say, "there shall be a Code, and that Code shall be the National." This clearly shows that the National Code is now sustained by a very large majority, and there is every reason to believe that this majority will soon be greatly increased.

To some objections which have been received, the Council replies that the purpose of the Code is not directly to combat quackery, but to regulate the conduct of physicians toward irregular practitioners, as well as toward each other and toward the public; that the approval of the Code has nothing to do with penalties for the non-observance of its rules, and that the institution and enforcement of penalties belong exclusively to local societies. Admitting frequent violations of the Medical Code, it is no more to be abrogated on that account, than other moral precepts which are not observed by all, or which are not rigidly enforced. The members of the Council have strictly abstained from appeals to the public in regard to the unfortunate discussion now existing in this State on the subject of the Ethical Code. They have not permitted themselves to be interviewed; they have not, directly or indirectly, furnished communications for newspapers, nor have they assailed the motives of those who have been active in efforts to establish an important alteration in the Code. They believe that peace and harmony cannot exist in the profession until the "New Code" advocates cease their agitation, put an end to the disturbance which they have created, and quietly submit to the will of the majority. The result of the present canvass, as far as it has progressed, plainly shows that the profession does not sustain the "New Code," but desires the reënactment of the National, which should be the only Code of Medical Ethics in this and every State of the Union. That this is the sentiment of the medical profession throughout the land—North, South, East, and West—no one can doubt.

In the *New York Herald* for June 6th it is stated that the New Code advocates have also published a pamphlet report of their canvass, from which we extract the following statement:

"The subscriptions to the New Code now reach 1265. They are drawn from the different counties in number as follows:

Counties.	Nos.	Counties.	Nos.
Albany	19	Onondaga	11
Allegany	7	Ontario	7
Broome	8	Orange	7
Cattaraugus	4	Orleans	2
Cayuga	10	Oswego	10
Chautauqua	7	Otsego	8
Chemung	8	Putnam	1
Chenango	8	Queens	5
Clinton	2	Rensselaer	5
Columbia	5	Richmond	6
Cortlandt	2	Rockland	5
Delaware	6	St. Lawrence	13
Dutchess	15	Saratoga	3
Erie	19	Schenectady	7
Essex	1	Schoharie	7
Franklin	6	Schuyler	4
Fulton	4	Seneca	3
Genesee	5	Steuben	23
Greene	4	Suffolk	2
Herkimer	4	Sullivan	2
Jefferson	12	Tioga	5
Kings	73	Tompkins	7
Livingston	9	Ulster	7
Madison	8	Warren	4
Montgomery	5	Washington	7
Monroe	22	Wayne	7
New York	251	Westchester	7
Niagara	2	Wyoming	1
Oneida	12	Yates	1

"The total number of signers in the report is 1265,[1] but it was understood several days ago that over one hundred more had subscribed, and the list has been increased since then. The total membership of the County Medical Societies is 3,827, so that the liberals thus far have only captured a large one-third. They say that the Old Code men have only obtained about six hundred signatures up to date, and that the remainder are non-committal as yet."

PHILADELPHIA.

JEFFERSON MEDICAL COLLEGE.—At a meeting of the Board of Trustees, held last Monday evening, Dr. Theophilus Parvin, of Indianapolis, was elected to the Chair of Obstetrics and Diseases of Women and Children, rendered vacant by the resignation of Prof. Wallace.

Dr. Parvin was born in Buenos Ayres in 1829, acquired a liberal education at the State University ot Indiana, and received the degree of M.D. from the University of Pennsylvania in 1852. He has had considerable experience as a teacher, having held professorships in the Medical College of Ohio and in the College of Physicians and Surgeons of Indiana, and is now Professor of Obstetrics and Medical and Surgical Diseases of Women in the University of Louisville. He was President of the American Medical Association in 1879.

Dr. Parvin is widely known as a learned and scholarly writer, and enjoys a high reputation as a lecturer and teacher. He is at present engaged in writing a systematic work on Midwifery, which, we understand, will appear shortly. His election is regarded with great satisfaction by the friends of the school.

NEW ORLEANS.

(*From our Special Correspondent.*)

SUMMER is well upon us, and although the thermometer has not ranged very high, the suffering from heat has been very great and general. The cause of this is the excessive relative humidity. On June 8th, at 2 P. M., the relative humidity was 90, while the temperature was 87.4°. Total rainfall for week ending June 9th, 4.51 inches. There were two cases of sunstroke for week ending June 16th. The temperature of one of the cases was 109.5° in axilla just before death.

SMALLPOX, strange to say, still has its own way. Deaths for week ending June 9th, 33 colored, 12 white. The fight against it is open to criticism. The Board of Health still refuses coöperation with the Auxiliary Sanitary Association in any and all matters. Deaths for week ending June 16th, 27 colored, 17 white.

One of the cases of leprosy—a woman—in the hospital broke out on May 15th with smallpox. Several instances have occurred in which persons have entered the hospital with a fever which afterwards proves to be that of the stage of invasion of smallpox. She probably became infected from one of these cases.

MALARIAL FEVERS are coming rapidly to the front. Under the warmth of the June sun and the rains, the poison is rapidly generated in the swamps which surround New Orleans. Last week, ending June 9th, there were six deaths from malarial fever, five being called congestive. It is interesting to note how largely the term *congestive* figures in the mortuary reports from this section of country. While it is reasonable to conclude that the influence of malaria and the effect of heat in enervating nerve function, should render the occurrence of congestion a more frequent event in warm latitudes than in those which are more temper-

[1] [*Sic*, actual count shows 715.]

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ate; there is still reason to believe that it is less often a cause of death than the local statistics would show.

THE NATIONAL BOARD OF HEALTH INSPECTION SERVICE began May 15th, and will continue until June 30th, when its funds expire. If no other good is done by it, certainly the prevention of senseless shotgun quarantines should be appreciated. Should a rumor of yellow fever in New Orleans be started, and no responsible inspectors certify to the non-infectiousness of passengers and goods per railroad and steamers, trains will be compelled to pass stations at full-speed, and steamers be prevented from landing at any little town which may become panic-stricken. Of course, such rumors are liable to be started at any time, but the officers of all the health organizations here are pledged to report any true or suspicious case as soon as discovered; and credence should be given to them, and not to every idle report prompted by malice or otherwise.

YELLOW FEVER.—No case has been reported yet. Not so very many years ago—indeed, not more than twelve years—doctors vied with each other as to who would have the first case of yellow fever. It was a big thing to report the first case; almost as much so as to report the greatest number. Now a doctor shuns the trials and tribulations attendant upon the diagnosis of the first case, and the gossip and criticism which meet him on every side.

THE ODONTOLOGICAL SOCIETY had its annual meeting and dinner last week: both a success.

BERLIN.

(From our Special Correspondent.)

VIVISECTION BEFORE THE GERMAN DIET.—The editorial in THE MEDICAL NEWS of May 26th, recalls to mind the strange fact that the antivivisectionist agitation has made remarkable progress even in Germany. Petitions, systematically organized all over the country, were brought before the German Diet. The Petition Committee proposed a simple Order of the Day, since no evidence was given of any real mischief, and since the House would confide in the government instantaneously restraining every abuse in the future. But notwithstanding that the Secretary of State for Public Instruction himself made a long and able speech in favor of scientific vivisection, in the session of April 16th, the House resolved, by a slight majority, to recommend the petitions to the Government for consideration.

HUMBOLDT MONUMENT.—By erecting the statues of Alexander v. Humboldt and his brother Wilhelm in front of the University, the government and the metropolis have fulfilled a long-felt duty. The eulogium upon Alexander, was made by Professor Virchow, who dwelt upon the pains-taking energy of the great naturalist.

DR. HENRY J. BIGELOW.—At a meeting of the Royal Medical and Chirurgical Society of London, held on June 12th, Dr. Henry J. Bigelow, of Boston, was elected a Foreign Honorary Fellow, as were also Prof. Charcot, of Paris, Prof. DuBois Reymond, of Berlin, and M. L. Pasteur, of Paris.

THE ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN INSTITUTIONS FOR THE INSANE met at Newport on Tuesday. Dr. J. H. Collender, of Nashville, presided. The following officers were elected for the ensuing year: President, Dr. John P. Gray, of Utica, N. Y.; Vice-President, Dr. Pliny Earle, of Northampton, Mass.

WHAT THE HOMŒOPATHISTS THINK OF THE NEW YORK CODE.—*The New York Tribune* has been interviewing prominent homœopaths to ascertain their views on the controversy in reference to the Code now going on in New York, and finds that they regard it with "perfect equanimity and undisguised amusement," and that they spurn the idea of their abandoning the "law of similars."

Dr. S. P. Burdick, who is a professor of obstetrics in the Homœopathic Medical College, thus expressed himself to the *Tribune* reporter: "There is no doubt at all that the consideration that led to the adoption of the New Code was largely pecuniary. The homœopaths, as a rule, have carried with them a clientage that represents the largest amount of money. The result has been that, with our advance, specialists have grown up in our school as clear-headed and successful as those of the old school, if not more so. We have reached a point where in no branch in the practice of medicine, surgery, or obstetrics are we obliged to go out of our own ranks for the best aid and counsel. That, I suspect, has dawned on their minds, and they have come to see that they have kept themselves out of a great deal of lucrative consultation practice which might have fallen into their hands if they had treated us with decent consideration. Of course, we enjoy their controversy now. We never asked for their consultations, and their refusal to consult with us never gave us the slightest discomfort, for the reason that we have been able, with truth in our hands, to work without them. We have the kindliest of feelings toward our brother-practitioners on the other side, and I for one will only be too happy to extend to them any advantage that I can in opening up the great field of truth, believing as I do that in the healing art there should be only one sentiment in the minds of those that practise it, namely, to grasp everything and anything that looks toward the benefit of sick and suffering humanity. When anything presents itself that is in advance of homœopathy, I will be one of the first to accept it."

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending June 16, 1883, indicate that intermittent fever has increased, that pneumonia has considerably decreased, and that erysipelas, bronchitis, cholera-morbus, diarrhœa, measles, inflammation of the brain, rheumatism, and whooping-cough have decreased in area of prevalence.

Including reports by regular observers and by others, diptheria was reported present during week ending June 16, and since, at twelve places; scarlet fever, at twenty-one places; and measles, at twenty-six places; smallpox was reported in Kalamazoo Township, Kalamazoo Co., (seven cases) June 16. The last case in Lyons Township, Ionia Co., died June 11.

A correspondent at St. Joseph, Berrien Co., writes: June 12, 1883, that paralysis is the most prevalent disease in that locality, attacking persons at all ages, but especially the young, and seems largely due to preceding intermittent fever, convulsions, and hydrocephalus.

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 18 TO JUNE 25, 1883.

BIART, VICTOR, *Captain and Assistant Surgeon.*—Assigned to duty as Post-Surgeon at Fort Lisseton, D. T.—*Par. 1, S. O. 102, Department of Dakota, June 13, 1883.*

GORGAS, W. C., *First Lieutenant and Assistant Surgeon.*—The leave of absence granted in Par. 5, S. O. 51, c. s., Department of Texas, extended one month.—*S. O. 63, Military Division of the Missouri, June 19, 1883.*

WYETH, M. C., *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Fort Maginnis, M. T.—*Par. 2, S. O. 103, Department of Dakota, June 14, 1883.*

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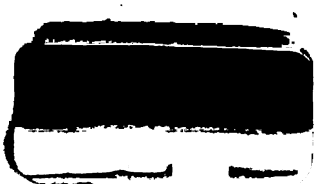

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